NAVAL POSTGRADUATE SCHOOL
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NAVAL POSTGRADUATE SCHOOL
Monterey, California

THESIS

SOFTWARE REQUIREMENTS SPECIFICATION OF A PROPOSED PLANT PROPERTY MANAGEMENT INFORMATION SYSTEM FOR THE NAVAL POSTGRADUATE SCHOOL

by

James B. Carter, Jr.
December 1982

Thesis Advisor: Ronald W. Modes

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The current system used to administer Plant Account equipment for academic departments at the Naval Postgraduate School involves four categories of system users and accountability for more than 2000 individual equipment items worth over seven million dollars. Implementation of a management information system (MIS) to support Plant Account equipment related functions could eliminate data handling redundancy and improve Plant Account (Continued)

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administration effectiveness. This paper presents an analysis and a logical functional specification of the present Plant Account system. Additionally, it proposes a software requirements specification independent of any physical system implementation which could be used in designing an MIS to support administration of Plant Account equipment at the Naval Postgraduate School.

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Software Requirements Specification of a Proposed Plant Property Management Information System for the Naval Postgraduate School

by

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN INFORMATION SYSTEMS

from the

NAVAL POSTGRADUATE SCHOOL
December 1982

ABSTRACT

The current system used to administer Plant Account equipment for academic departments at the Naval Postgraduate School involves four categories of system users and accountability for more than 2000 individual equipment items worth over seven million dollars. Implementation of a management information system (MIS) to support Plant Account equipment related functions could eliminate data handling redundancy and improve Plant Account administration effectiveness. This paper presents an analysis and a logical functional specification of the present Plant Account system. Additionally, it proposes a software requirements specification independent of any physical system implementation. This specification could be used in designing an MIS to support administration of Plant Account equipment at the Naval Postgraduate School.

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I. INTRODUCTION

A. GENERAL

The installation of computer based management information systems has dramatically increased the ability of a decreasing number of personnel to manage organizations and systems of increasing size and scope. Once consideration is given to implementing an MIS, there is a series of steps in the process leading to integration of a task with the MIS designed to help accomplish it. For success of a system, possibly the most important and decisive step is the initial one in which existing system requirements are defined. Systems analysts are tasked with the responsibility of studying system operation and creating a system specification of the existing system. This specification describes not only the task objective of the system, but the functions and data transactions necessary for task accomplishment. Gane and Sarson define a Logical Functional Specification as:

> a detailed statement of what the system is to do, which is as free as possible from physical considerations of how it will be implemented [Ref. 1, p. 24].

A simple example of this difference between "logical" and "physical" is illustrated by considering a data file used in an existing system for which a logical functional specification is prepared. The specification should document the data file existence in terms of its contents and the data placed in it and/or removed from it. However, whether the file is maintained in electronic memory or in a green notebook is not a matter of concern to the analyst. Determination of physical implementation in a new system is left to the system designer.

It is helpful to briefly examine a difference in terminology between Gane and Sarson and the other major reference used in the completion of this paper. In his book, Pressman does not refer to a Logical Functional Specification but describes a Software Requirements Specification for a new system. This specification is a logical representation of software to implement a new system which can be reviewed and approved by the requester (user). It includes basic functions, performances, interfaces, and information, and validation criteria for the software system [Ref. 2, p. 96]. He utilizes the same emphasis as Gane and Sarson on the logical nature of the Software Requirements Specification. This obviously includes a logical model of the present system. His concept of the Software Requirements Specification is identical to Gane and Sarson's Logical Functional Specification; only the title and some minor areas within the two specification are different. It should be noted that Gane and Sarson are primarily concerned with techniques used in implementing any new (or replacement) computer-based system which includes hardware as well as software considerations. In contrast, Pressman's primary emphasis is techniques related to software design and installation.

The difference in problems approached by the two books contributes to the variance in terminology. Both directly or indirectly propose the following items which should be included in the specification created by the system analyst:

- a Logical Data Flow Diagram of the system.
- Data structure representations.
- Data Dictionary.
- System interface description.
- Description of functions in the system.
- Processing narrative (System process descriptions).
- Design constraints.

The major commonalities in the Logical Functional Specification and the Software Requirements Specification were utilized in the preparation of this paper.

Once system users approve the logical functional specification of their system, it is the foundation of the design process to follow if the decision is made to install a new system. Even if the decision is made not to implement a new system immediately, the logical functional specification can still be of great worth in any later design effort. As long as subsequent changes to the system are not significant, an accurate logical functional specification remains valid. Having this specification will eliminate the necessity of repeating the system analysis phase of the design effort when a decision is made to implement a computer-based system. One thing is certain; any new system designed to meet a current system's requirements using the functions delineated in the systems analysis phase will be useful and effective in direct proportion to the accuracy of the system logical functional specification.

After studying the procedures and methodology necessary to implement a new computer-related system where one did not previously exist, the author was interested in combining his academic knowledge with some practical experience in this area. Furthermore, it was desired that the project undertaken have practical application and the possibility of implementation. For this reason, the Plant Property Account (also called the Plant Account) at the Naval Postgraduate School (NPS) was selected as the subject of this investigation. The Plant Account (PA) was considered a relevant subject for this study because of its small size and localized nature. In preliminary discussions with system users, a perceived need for improvements in the Plant Accounting system was discovered [Ref. 3, 4, 5, 6]. Additionally, as recently as Fiscal Year 1981, Plant Accounting procedures

and effectiveness were a special interest item of the Secretary of the Navy and the Chief of Naval Operations [Ref. 7]. It remains a high interest item for the Chief of Naval Education and Training (CNET) in inspections of his subordinate commands [Ref. 8], which includes NPS. This high interest is due to the possibility of waste, fraud, and abuse when dealing with the valuable portable equipment items contained in the Plant Account.

B. THESIS OBJECTIVES

The primary objectives of this work are to analyze the present Plant Property Accounting system installed at the Naval Postgraduate School and create a logical functional specification/software requirements specification for the system. For the purposes of continuity, the author has titled the results presented here as a Software Requirements Specification in recognition of the emphasis on future software installation. For reasons discussed below, there is a lesser emphasis on the hardware aspect of the potential system supported by this paper. It is recognized that a logical functional specification of the Plant Accounting studied is included in the Software Requirements Specification. Hopefully, this thesis could be used as the basis for design of a computer-based Plant Account Management Information System (PA MIS) to meet present system requirements while minimizing the administrative overhead required. Design and implementation of an MIS presumes the system is capable of being implemented on an MIS and that it will be cost effective to do so. While these facts have not been proven in this case, the results of this effort should provide a usable aid in determining the feasibility of MIS implementation. Cost effectiveness is a factor which is obviously important but which is beyond the scope of this work.

Even if a Plant Account MIS is not immediately implemented, this thesis can be of practical use. It is doubtful that either the requirements of higher authority [Ref. 9, 10] or the local implementation to meet those requirements [Ref. 11] will change dramatically in the forseeable future. This document may be of use for another reason. At the time of its writing, there was no coherent plan for an interdepartmental MIS at NPS. If such a plan is developed, a Plant Account MIS would not be implemented individually, but the Software Requirements Specification could be used in constructing a Plant Account module for a larger NPS MIS.

C. THESIS SCOPE

The scope of this thesis will be restricted to the Plant Accounting system as implemented at NPS. In discussing the "Plant Accounting system," one usually thinks of the Plant Account clerk and her transactions concerning Plant Account Property accountability. In this paper, the "Plant Accounting system" is arbitrarily extended to include data transactions not specifically involving the Plant Account clerk, such as Plant Account equipment requisition and calibration actions. Specifically, all data transactions involving the normal requisitioning, accountability, calibration, and disposal of Plant Property Account equipment are included in the system logical functional specification. All of the above transactions concerning Class 3 equipment used by academic departments at NPS will be examined. Class 3 equipment includes individual equipment items (vice buildings and industrial equipment) most frequently used at NPS for academic purposes. This simplifies study of the system but also ignores the following other categories of PA equipment and users:

- Class 4 Plant Account equipment (normally industrial equipment; little is used within academic departments at NPS).
- Plant Account equipment which is acquired by means other than requisition of new equipment (such as transfer from another command).
- Additional users and holders of Plant Account equipment (including some Class 3) at NPS such as the Public Works Department.

D. THESIS RESEARCH METHODOLOGY

Data was collected by observation of the present procedures and collection of documentation used in administration of the PA system. To ensure the underlying requirements were understood and the system fully analyzed, appropriate references were studied and interviews conducted with personnel in each department and office directly concerned with the operation and administration of the Plant Account. The author, acting as a systems analyst, first acquainted himself with the system and then created a Software Requirements Specification using guidelines obtained primarily from the works by Gane and Sarson [Ref. 1] and Pressman [Ref. 2].

E. THESIS STRUCTURE

1. System Information Description

Following this introductory chapter, the next two chapters present an Information Description of the current Plant Account system. Chapter II includes a narrative description of the major data transactions within the system and features logical data flow diagrams used to document the

logical interrelationships of system components. Chapter III introduces the reader to the Data Dictionary sections compiled by the author during his system analysis.

2. System Problems

The material in Chapter IV is not formally a part of a Software Requirements Specification or a logical functional specification, but it is considered appropriate to include immediately after the Information Description. This chapter addresses the Plant Account system problems observed by the author during his system analysis (It may be the most widely read chapter of this work!).

3. System Functional Description

Following the consideration of the current system functions and some of the observed problems, Chapter V addresses the functions and related design constraints to be considered by the the designer of a new system. The final chapter sets forth conclusions and recommendations for future actions concerning the implementation of a Plant Account MIS.

F. PROJECT RESULTS

The conclusions and recommendations relating to the actual project work are contained in Chapter VI. In completing this thesis, the author discovered that the system requirements analysis preceding any system design effort is a time-consuming and detailed process. It is noted that it was the original objective of this work to accomplish much more than was actually done. In the early stages, the author actually had visions of completing a preliminary system design for a PA MIS. In objectively reviewing the final result, it is acknowledged there is

still work remaining on this Software Requirements Specification before it will be a smooth product usable by those who will actually design a new system. The steps which need to be taken from the point where the author stopped are noted in the final chapter.

The Data Dictionary sections included in Appendices B through F were the most time-consuming portion of the thesis. The author now knows from experience the value of an automated system to assist in building a Data Dictionary. While such a system for that specific purpose was not employed, the NPS IBM 3033AP computer was used to hold the data as it was entered. Its text editing and sorting capabilities were invaluable during the course of Data Dictionary construction; much more was accomplished than would have been the case without it. With the revisions and corrections inherent in a system analysis effort, not using a capable text processor with memory and sorting capabilities is punishment no systems analyst (regardless of experience) deserves. It is (conservatively) estimated that the savings in time alone were better than half of the time expected to do the same tasks manually. The anticipated increase in accuracy cannot be estimated on the basis of this project due to the analyst's extensive lack of prior experience.

The author admits he has learned first hand that in defining system requirements for a system (even a small system), one quickly finds there is much more work than meets the eye of the enthusiastic novice. However, there still remains a certain satisfaction in learning a system not only well enough to understand its weaknesses but to be so bold as to attempt to construct a detailed (albeit non-physical) roadmap for the designer to follow.

II. CURRENT SYSTEM DESCRIPTION AND DATA FLOW DIAGRAMS

A. GENERAL

This chapter has two purposes. The first is to provide the reader with an understanding of the current Plant Account (PA) system as the author has come to understand it. The second purpose is to present the reader with a logical data flow diagram for each process and system interface described in this chapter. When placed together, the individual diagrams contained in the figures in this chapter form a composite diagram which is the logical data flow diagram depicting system operation.

B. SYSTEM DATA FLOW DIAGRAMS

The data flow diagram (DFD) is an important component of the system specification. It is designed to present the processes in a logical format independent of the office or location where the process is carried out. The meanings of the symbols used in the data flow diagrams are noted in Figure 2.1. Some notes on the data flow diagrams below will be helpful to the reader.

1. Physical Implementation Notations

In this chapter, the data flow diagrams are included in the narrative section describing the current major PA system transactions requiring the user processes pictured in the diagrams. Although the physical relationship of system processes, data stores, and data flows are described in the narrative, the description of these components in the diagrams and Data Dictionary below intentionally do not reflect the narrative comments. The present user location

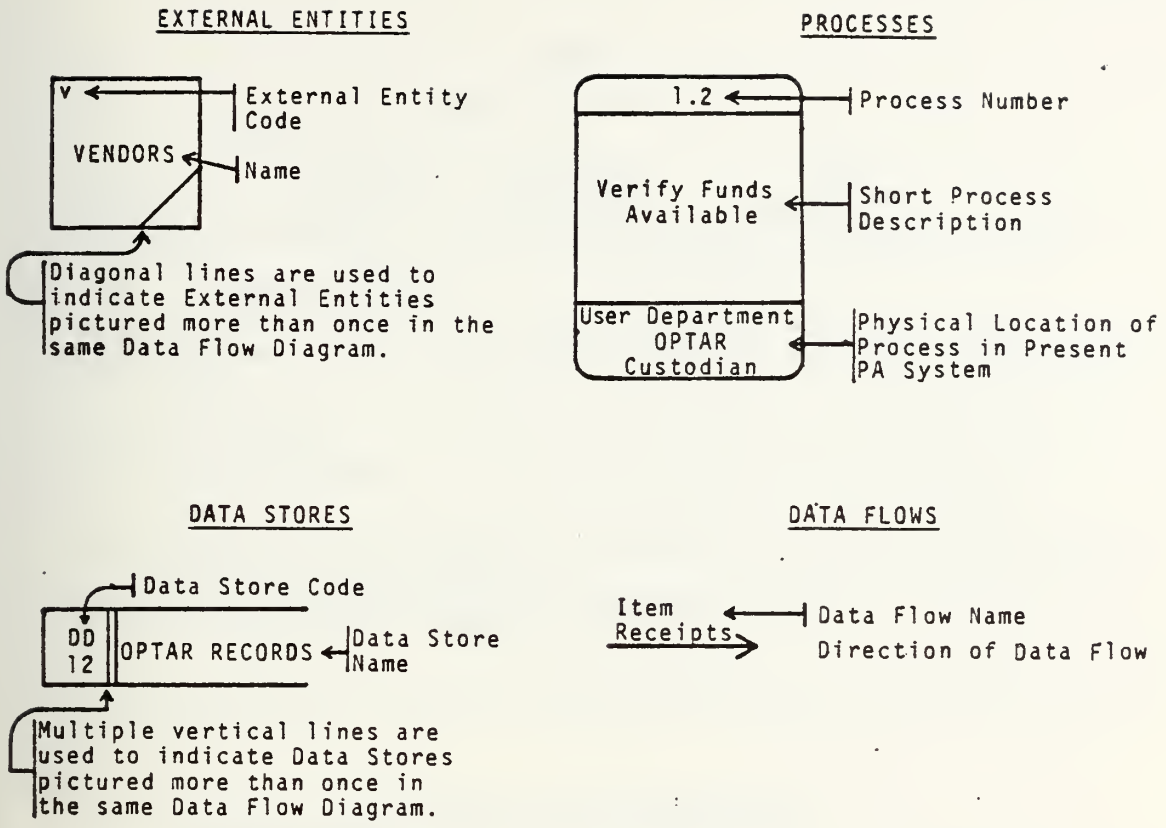


Figure 2.1 Data Flow Diagrams Symbology.

of a data process is noted in the lower section of the process symbol box to keep it separate from the description itself. Data store user locations can be determined from the identification code in the diagram data store symbols. While the last letter of all data store identification codes is "D" (Data store), the initial letters reflect the physical locations noted in Table I. Identifying the process and data store locations is intended to assist a designer's understanding of the present system but not influence his design of a new one.

TABLE I

Data Store Location Identification Code

First Letter	PA System User	Second Letter	User Subgroup
C	Comptroller Department	B	Budgeting/Accounting Division
		P	Plant Account Clerk
S	Supply Department	C	Receipt Control Division
		I	Issue Control Division
		P	Purchasing Branch
		R	Receiving Division
D	User Department		
R	Research Administration Office		

2. Process and Data Store Numbering

The data flow diagrams are intended to present high level processes, meaning that within each process there are other processes. The numbering scheme employed for processes is designed to reflect this. For example, Figure 2.2 depicts the high level processes in the PA equipment requisitioning process. Subsequent diagrams in Figures 2.3 through 2.9 illustrate the lower level processes within each major process depicted in Figure 2.2. The process numbering reflects this disaggregation, e.g., all processes which could logically be included exclusively within Process 1 are numbered 1.1, 1.2, etc. This breakdown is only done with the requisitioning process and the Supply Department item receipt data handling to illustrate the concept. All other diagrams are designed to represent upper level processes and avoid the process details which can properly be included in

more detailed data flow diagrams of each process. In some cases, processes below the highest level were included to ensure process interrelations with other diagram elements were adequately illustrated.

The numbering of processes and data stores has no intended correlation to any department or type of process (Correlation to department and department subsections is provided by the notation explained above). There is also no correlation of process numbers and the chronological flow of data. However, the reader will note that a process retains its original number when present in more than one diagram. In each diagram in which it appears, a process will have only the inputs and outputs relevant to data flow within that diagram. In the data flow diagram for the entire PA system, however, all inputs and outputs of each process would be included since the process would only be depicted once on the diagram.

3. Data Flow Diagram Segmentation

The author chose to present the Plant Account system data flow diagram in the segments found in this chapter to make it understandable for the reader (and also avoid the inclusion of a necessarily large diagram with all DFD data). The fact remains that a single comprehensive system data flow diagram is the one needed by design personnel to obtain the necessary understanding of the entire system for design purposes.

C. REQUISITIONING DATA FLOW

Requisitioning data flow involves transmission of data from the requester to the provider of PA equipment items. Figure 2.2 is an overview of the data flow through the departments involved.

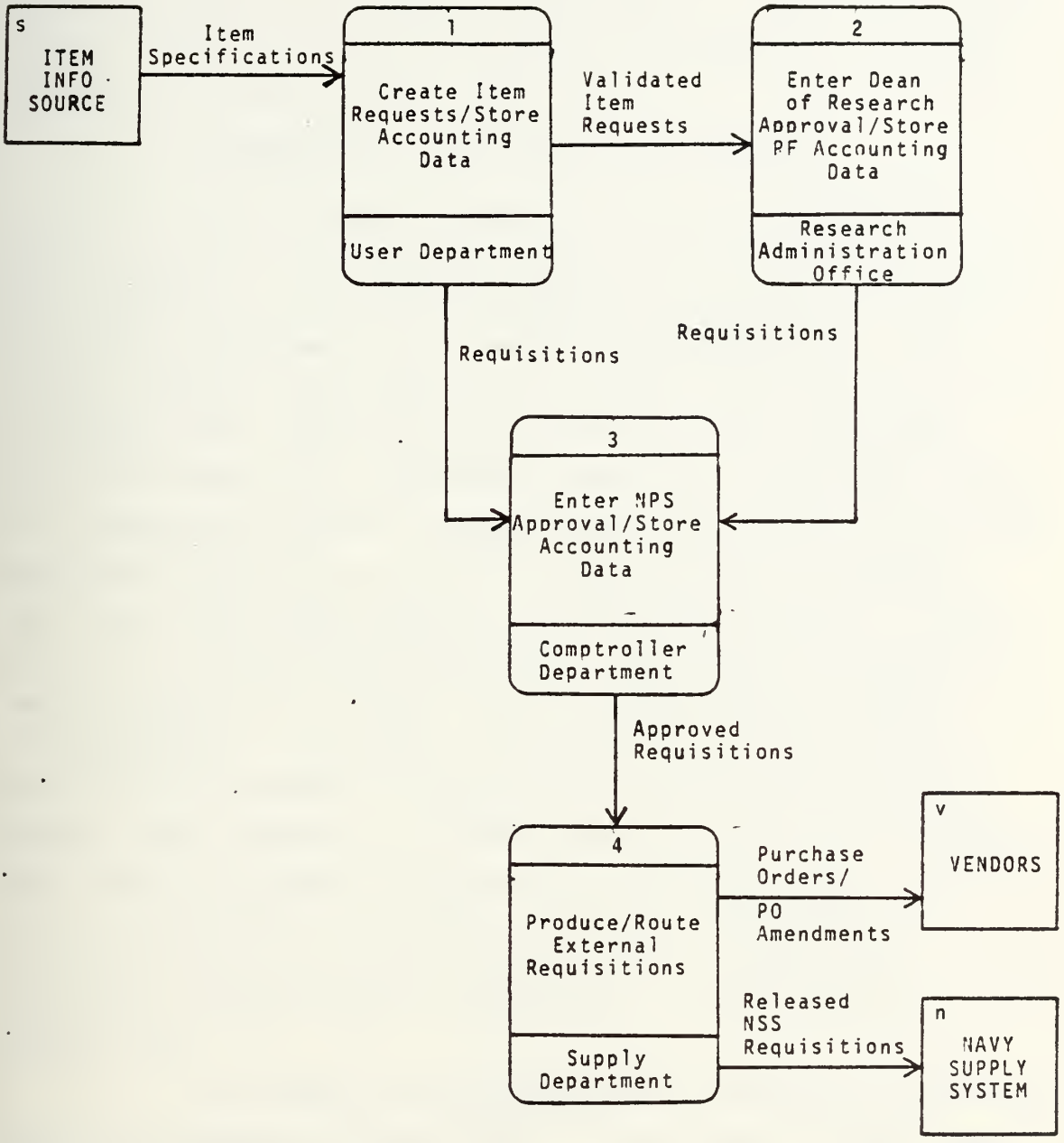


Figure 2.2 Requisitioning Data Flow.

1. User Department

The procedures for equipment acquisition vary slightly among the academic departments. They are similar enough to permit a generic process description described below and illustrated in Figure 2.3.

a. Requisition Initiation and Funding

The ultimate user of equipment designated as a Plant Account item is usually the originator of the requisition request. In an academic department this will usually be either a professor or a senior lab technician. The initial step in the requisition process is research of the equipment data required for the requisition, including possible vendors for potential commercial purchases. Then the proper requisition codes are selected based on the user department identity and the NPS Comptroller's guidance, which has been implemented to distinguish between various types of requisitions [Ref. 12]. Depending on the department, either the ultimate user, a department secretary, or the department equipment coordinator will type out the requisition document. This is the Department of Defense Single Item Requisition System Document (DD Form 1348 or "DD-1348") pictured in Figure 2.4. If additional information is required to specify the desired equipment characteristics or capabilities, a continuation form for the DD-1348, Standard Form 36 ("SF-36"), is used. See Figure 2.5.

The user is responsible for making the determination of whether the equipment is available through the Navy supply system (NSS) before requesting purchase from a commercial source. The only differences in content of the DD-1348 are specification of the National Stock Number (NSN) of the equipment or a commercial item source, and different routing data for the two methods of purchase.

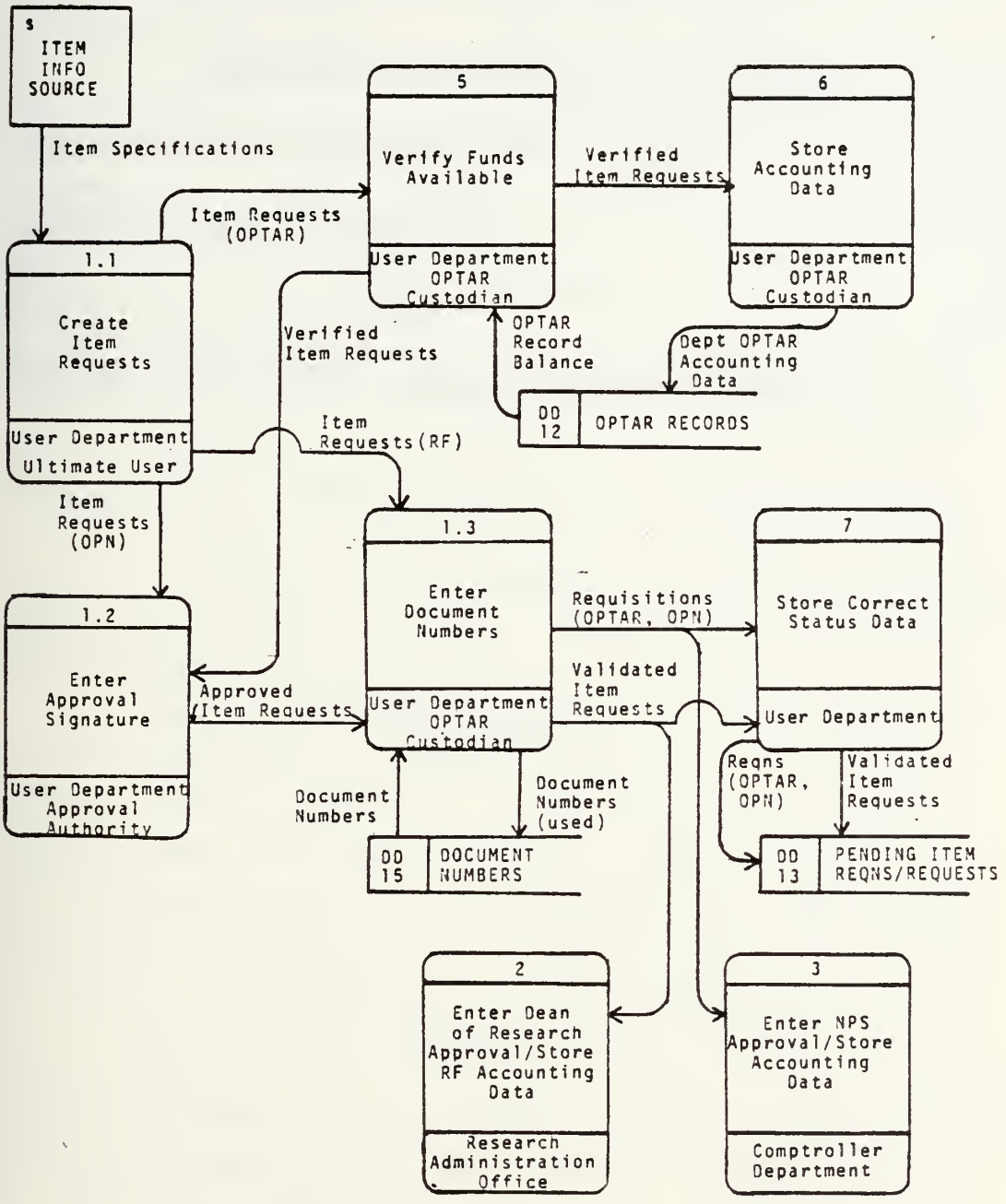


Figure 2.3 User Department Requisition Data Flow.

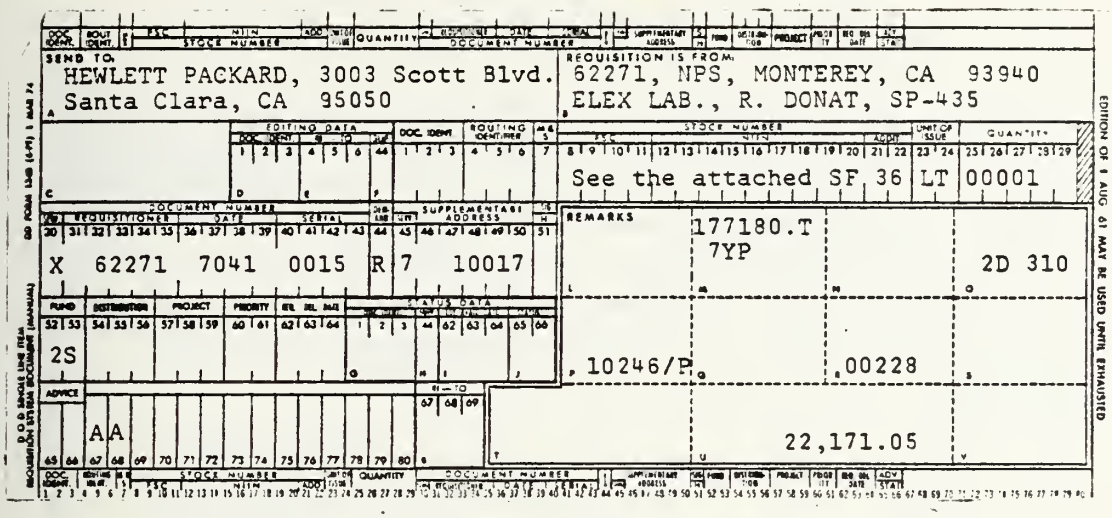


Figure 2.4 DD Form 1348 (DD-1348) Item Requisition.

A decision about requisition funding source must be made by the initiator of the requisition. There are three funding options possible.

(1). Reimbursable Funds. If the equipment is to be used primarily in support of a specific research effort for which Reimbursable Funds (RF) (also called research funds) have been provided to NPS by a patron command, the equipment can be purchased with these funds. Normally the purchase amount is limited only by the money available in the Reimbursable Funds account used and the limit of the previously approved research budget for the specific equipment item. However, if the patron command has provided the money in the account from its allocation of the Operating and Maintenance, Navy (O & MN) budget, a $3000 unit price limit applies.

(2). OPTAR Funds. If the item will be in general use in the department and has a unit value of less than $3000, the purchase can be made using department OPTAR (OPerating TARget) funds. This money is provided by the

Exception to SF 36
Approved by NARS 9 76

STANDARD FORM 36, JULY 1966 GENERAL SERVICES ADMINISTRATION FED. PROC. REG. (41 CFR) 1-16.101	CONTINUATION SHEET	REF. NO. OF DOC. BEING CONT'D. f-SigProc/PM/Donat	PAGE 1	OF 1

NAME OF OFFEROR OR CONTRACTOR
HEWLETT PACKARD, 3003 Scott Boulevard, Santa Clara, CA 95050

ITEM NO.	SUPPLIES / SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1.	MODEL 5061A CESIUM BEAM FREQUENCY STANDARD	1	EA	19,500.00	19,500.00
	w/OPTION 003: TIME STANDARD & STANDBY POWER SUPPLY	1	EA	2,895.00	2,895.00
					22,395.00
	FREQUENCY STANDARD, CESIUM Bench mount Freq Output: 5MHz, 1MHz, 100kHz/1 Volt BNC Connections Accuracy: $\pm$ 1 X 10^{-11} Clock pulse range: 1 usec to 1 sec Digital clock display 1 PPS Outputs: Front & rear BNC 20 usec/min width Power: 115/230V 60/400 Hz				

36-108-18 S/N 0108-LF-200-3370

Figure 2.5 Standard Form 36 (SF-36).

Navy to NPS from its O & MN budget; the NPS administration allocates it among NPS departments.

(3). OPN Funds. Purchases of equipment with a unit value of over $3000 can be made without exception using OPN funds, but a two year lead time is required. OPN funds are controlled by the Chief of Naval Education and Training (CNET) and awarded annually to CNET commands (of which NPS is one) for purchases with prior CNET approval. Each spring, NPS academic departments submit proposed future OPN equipment purchases to the Comptroller Department via the Dean of Sciences and Engineering (DSE). (NPS support departments submit their requests to the Comptroller through another route not including the DSE.) At the same time, departments are notified of the current status of their requests for the current fiscal year (FY) and asked to validate requests which were submitted the previous spring for the next FY. The newly proposed items will be consolidated in a prioritized list and submitted to CNET as requested NPS OPN expenditures for the fiscal year two years in the future.

After equipment items are approved for purchase, and OPN funds are available, the requesting department is authorized by the Comptroller to submit a DD-1348 for the equipment. These OPN requisitions are handled in the same manner as OPTAR requisitions. For this reason, OPN requisition procedures will not be addressed separately in the remainder of this chapter. It should be noted there are some minor routing differences within the user department between potential OPTAR and OPN requisitions.

b. Department Processing

After the DD-1348 is typed, it will typically be passed to a central point in the department where the department accounting detailed below occurs.

- A requisition number (also called the "stub number") is placed on the DD-1348. The document number is a number from the sequential block assigned to the department by the Comptroller. It is part of the requisition number.
- The department OPTAR balance is checked to ensure there are funds remaining to support a proposed OPTAR purchase.
- Purchase approval is given by the department authorizing authority who signs the DD-1348 for all OPTAR or OPN expenditure requests. This is usually the department chairman or a designated assistant.
- The department OPTAR log is tentatively debited for OPTAR funded purchases.
- A copy of the DD-1348 is retained for a department requisition suspense file.

Routing of the DD-1348 and SF-36 (if used) from the user department is dependent upon the type of funding requested [Ref. 13, 14].

- OPTAR/OPN Requisitions are forwarded to the NPS Comptroller Department for further action.
- Reimbursable Fund Requisitions are forwarded to the Research Administration Office.

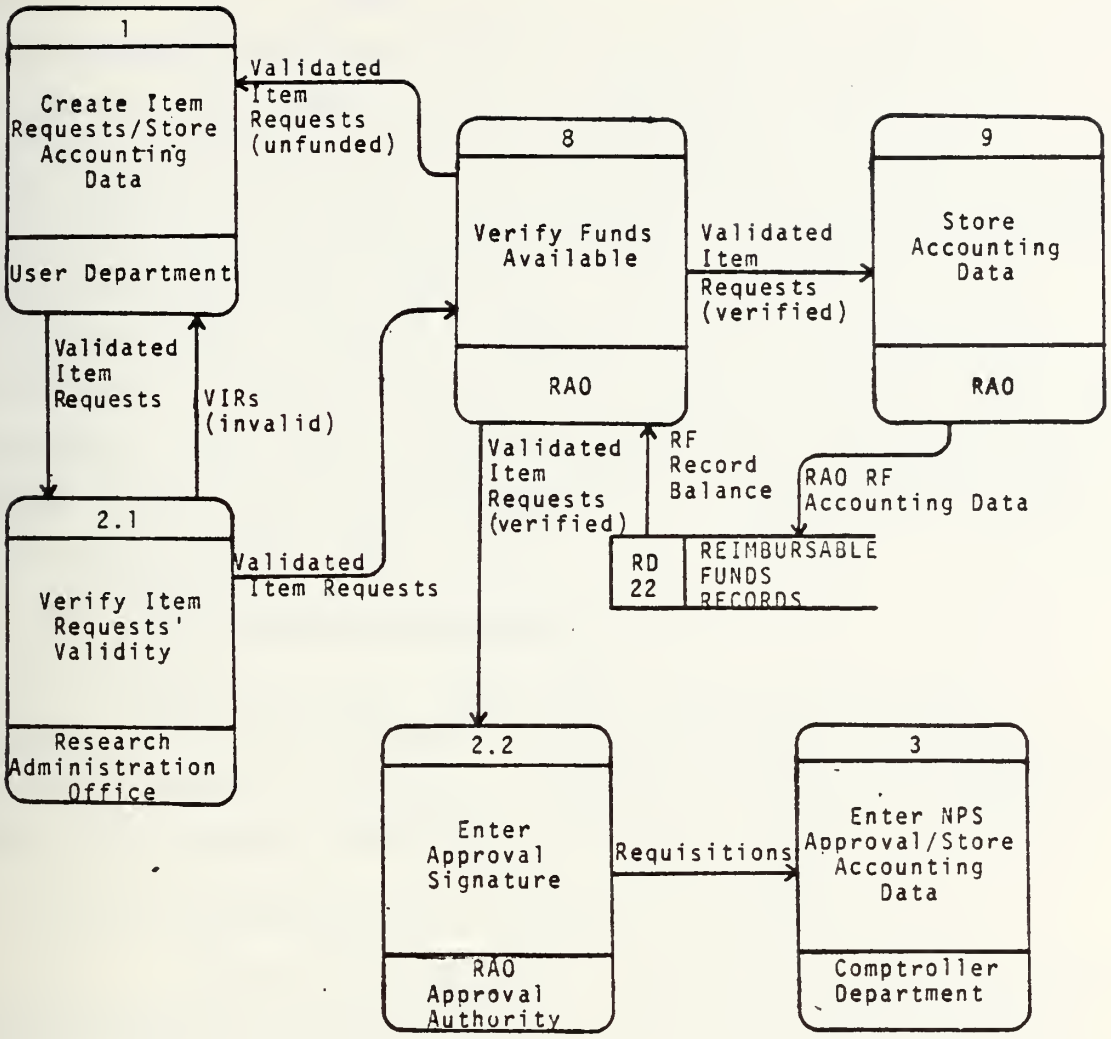


Figure 2.6 RAO Requisition Data Flow.

2. Research Administration Office (RAO)

a. Reimbursable Funds

Requisition data flow through the RAO is relatively simple and is pictured in Figure 2.6. Only requests involving Reimbursable Funds from a research account are handled by the Research Administration Office (for which the Dean of Research is responsible). The request accounting

data and codes on each request are initially checked. Then the requested equipment item is verified to ensure its purchase with research funds is authorized (for example, a hand-held calculator is not an authorized purchase). Additionally, the item must have been budgeted for purchase with the RF money designated. Following verification that the RF fund contains sufficient funds for the purchase, a tentative debit is made. (RAO accounting transactions are made using a computer program on the NPS resident IBM 3033AP computer). The final step in RAO processing is approval by means of an authorization signature on the DD-1348, making it a requisition. [Ref. 15]

3. Comptroller Department

The Comptroller Department performs official accounting of all accounts at NPS and grants final approval for all equipment requests. Figure 2.7 depicts requisition data flow through the Comptroller Department.

a. Budgeting and Accounting Division

Whether the DD-1348 requisition arrives at the Comptroller Department from the originating department or the RAO, the procedure is the same. An initial screening of the requisitions is done to verify that the item requisition and accounting codes are correct. A tentative debiting of the appropriate user department OPTAR or Reimbursable Fund account is done as appropriate. If the item is a potential Plant Account item (equipment with expected life of over one year and a value of $1000 or more), a copy of the DD-1348 is sent to the Plant Account (PA) clerk (who is also in the Comptroller Department). Following the tentative debiting action, all requisition paperwork is passed to the Supply Department. [Ref. 16]

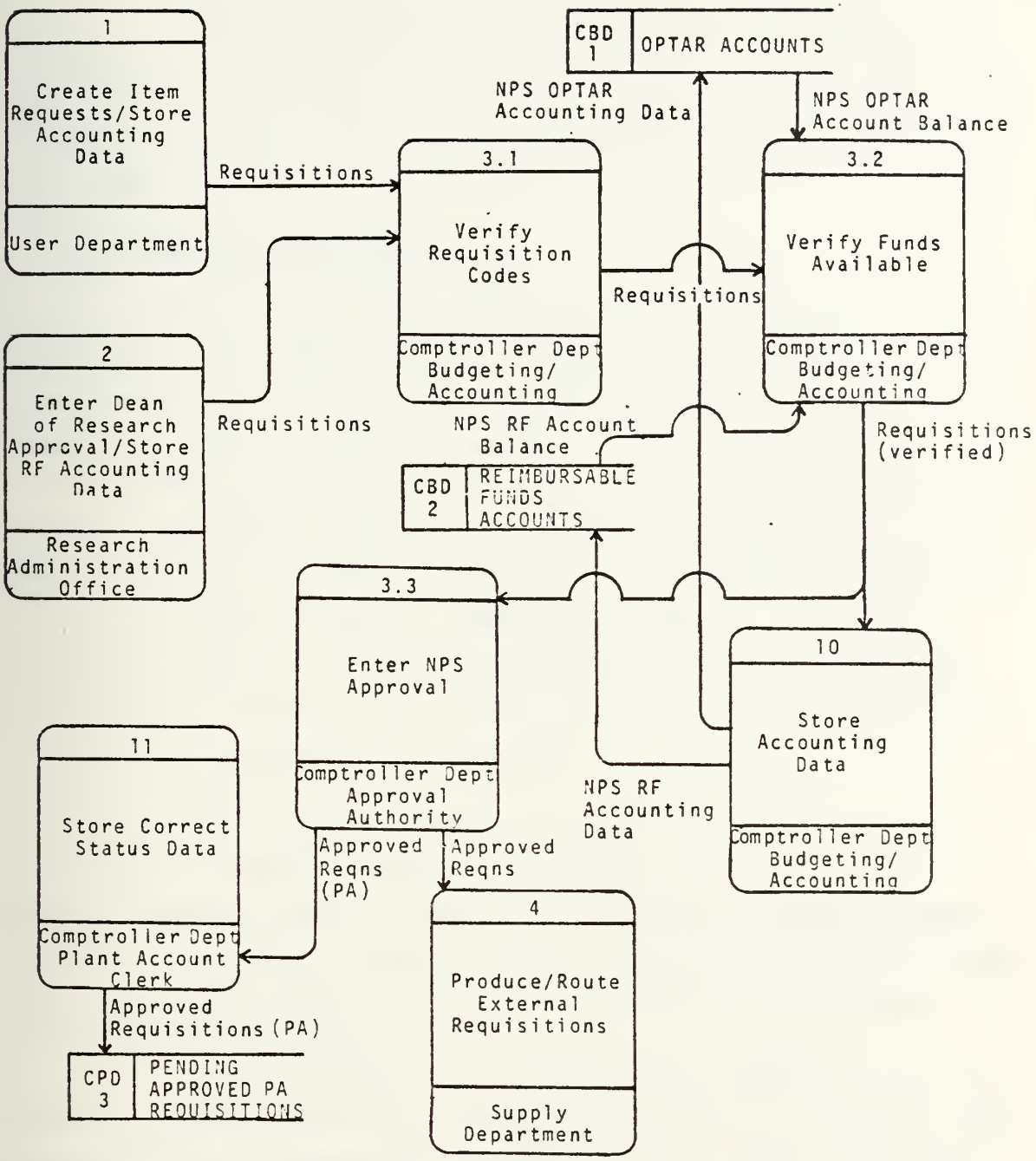


Figure 2.7 Comptroller Department Requisition Data Flow.

b. Plant Account Clerk

The DD-1348 copy received from Budgeting and Accounting is placed in a PA requisition suspense file. This file is not required by any directive but was recommended by an audit team which visited NPS in the fall of 1981 [Ref. 17].

4. Supply Department

Supply Department (SD) actions are independent of the requisition fund source. Only the feedback of requisition documentation following Supply Department action is dependent upon the funding source. (This feedback data flow is described in the next section.) Flow of requisition data within the Supply Department does vary depending on whether the requisition is for equipment to be obtained through the NSS or by purchase from a commercial vendor. Both are discussed below. All requisitions are received from the Comptroller Department and sent initially to Issue Control.

a. Issue Control Division

All requisitions are screened in Issue Control to verify the user department determination of whether the requisitioned items are available through the Navy supply system. If verified that an item cannot be procured through the NSS, Issue Control passes all requisition paperwork to the Purchasing Branch.

If the requested equipment is available through the Navy supply system but the department has requested the purchase from a commercial source, the SD will return the DD-1348 for conversion to a NSS requisition by revision of the routing indicator and addition of the correct NSN. The requisition is then resubmitted using the same requisition number. If the requisition is correctly ordering equipment

available through the Navy supply system, procedures fairly common throughout the Navy are followed.

The flow of requisition data through Supply in the case of a NSS requisition is illustrated in figure 2.8. Equipment information on the requisition is used to verify or correct the NSN of the equipment to be ordered. Other required requisition information (including an updated price, if necessary) is placed on the original requisition DD-1348. There may be an increase in the actual price from the price on the submitted DD-1348. If so, a phone call is made to the authority controlling funds expenditure to confirm the requisition. For OPTAR expenditures, this is the user department; for Reimbursable Funds, the RAO.

From this point on, the requisition is handled in the Navy supply system in the standard manner. Requisition information is transmitted to the Naval Supply Center Oakland, California (NSC Oakland), by means of a standard requisition message through the Naval communications system. After Issue Control completes requisition processing, a copy of the DD-1348 is sent to the Receiving Division. [Ref. 18, 19]

b. Purchasing Branch

The flow of commercial requisition data through the Supply Department is illustrated in Figure 2.9. After being received from Issue Control, the verified commercial requisition is assigned to one of the five buyers in the Purchasing Branch. First it is screened to determine if the desired equipment is a GSA schedule item. If so, a government contract already exists for purchase of that particular item with a single vendor. Because of the $1000 minimum unit value for PA equipment and the $500 maximum on government procurements without a competitive bid/award process, procurement of all potential PA equipment items which are

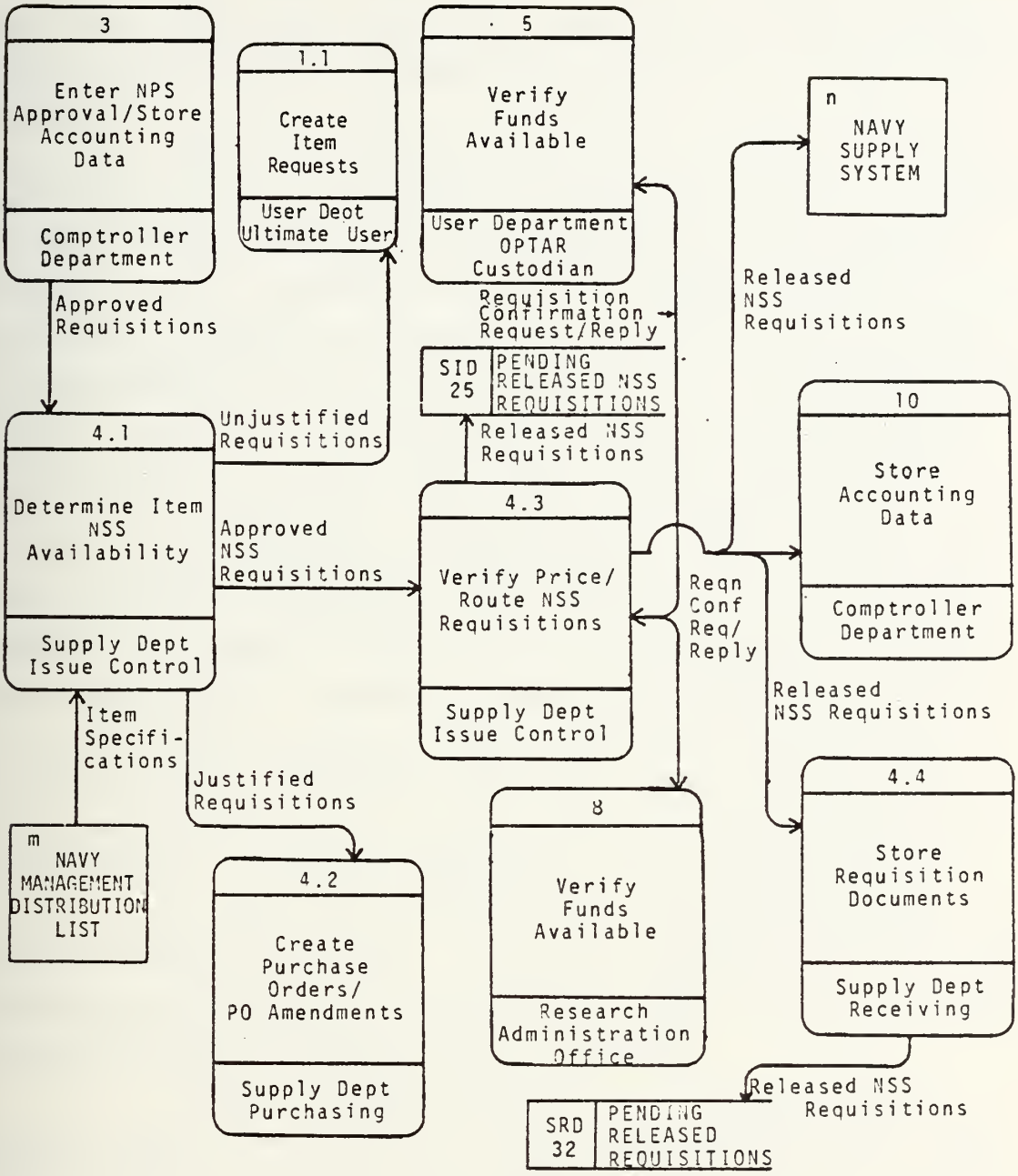


Figure 2.8 Supply Department NSS Requisition Data Flow.

not GSA schedule items will normally be made by the bid/award process. The exception is when the requisitioning department provides sufficient justification for procurement from a "sole source" without going through the bid/award process.

Upon verification of a "sole source" necessity, completion of the bid/award process (which takes an average of two to three weeks), or verification of the equipment status as a GSA schedule item, the equipment price is finalized and the remaining vendor information and the purchase order number is obtained for inclusion on the purchase documents. The buyer then passes the handwritten additional information to a typist who types a smooth copy of the DD-Form 1155 (DD-1155). As is done in Issue Control, if a price increase occurs the funds expenditure authority is called prior to finalizing the requisition. The DD-1155, which is pictured in Figure 2.10, is officially a Delivery Order (DO) for GSA Schedule items and a Purchase Order (PO) for a bid/award or sole source acquisition. Both are referred to as a "purchase order" by users and the requisition numbers assigned to them by Purchasing are "purchase order numbers." Those conventions will be followed here.

A copy of all requisition documents is send to the SD Receiving Division. Original requisition and request documents and copies of all documents sent to the vendor are passed to the SD Receipt Control Division.

Since a Purchase Order is a contract with a vendor, there are rarely any price changes after the original DD-1155 is written. If a price change should occur, an amendment to the basic PO is written by Purchasing and forwarded to Receipt Control. A phone call to the funds expenditure authority is made after each price change occurs to allow the requisition to be cancelled if desired.

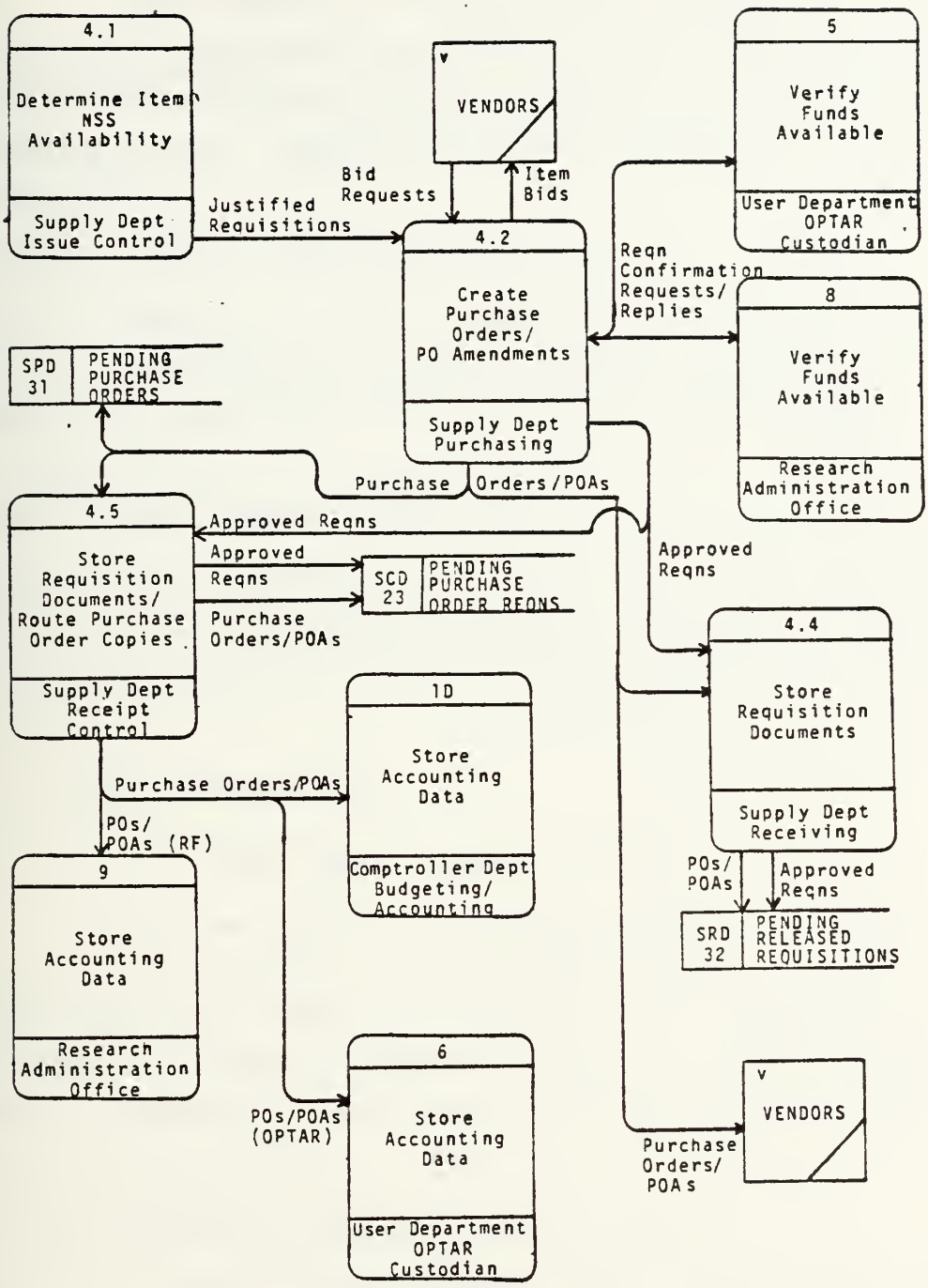


Figure 2.9 Supply Department Commercial Requisition Data Flow.

c. Receiving Division

The Receiving Division uses copies of requisition documents received from Issue Control and Purchasing to identify the user department and delivery location when the equipment arrives. Receiving places the copies in its suspense file.

d. Receipt Control Divison

Copies of all all requisition documentation are received from Purchasing and are placed in a file of outstanding requisitions filed in order of PO numbers.

D. REQUISITION FEEDBACK DATA FLOW

This section describes the flow of data back to other departments from the Supply Department following completion of requisition action. This flow is pictured in Figure 2.11.

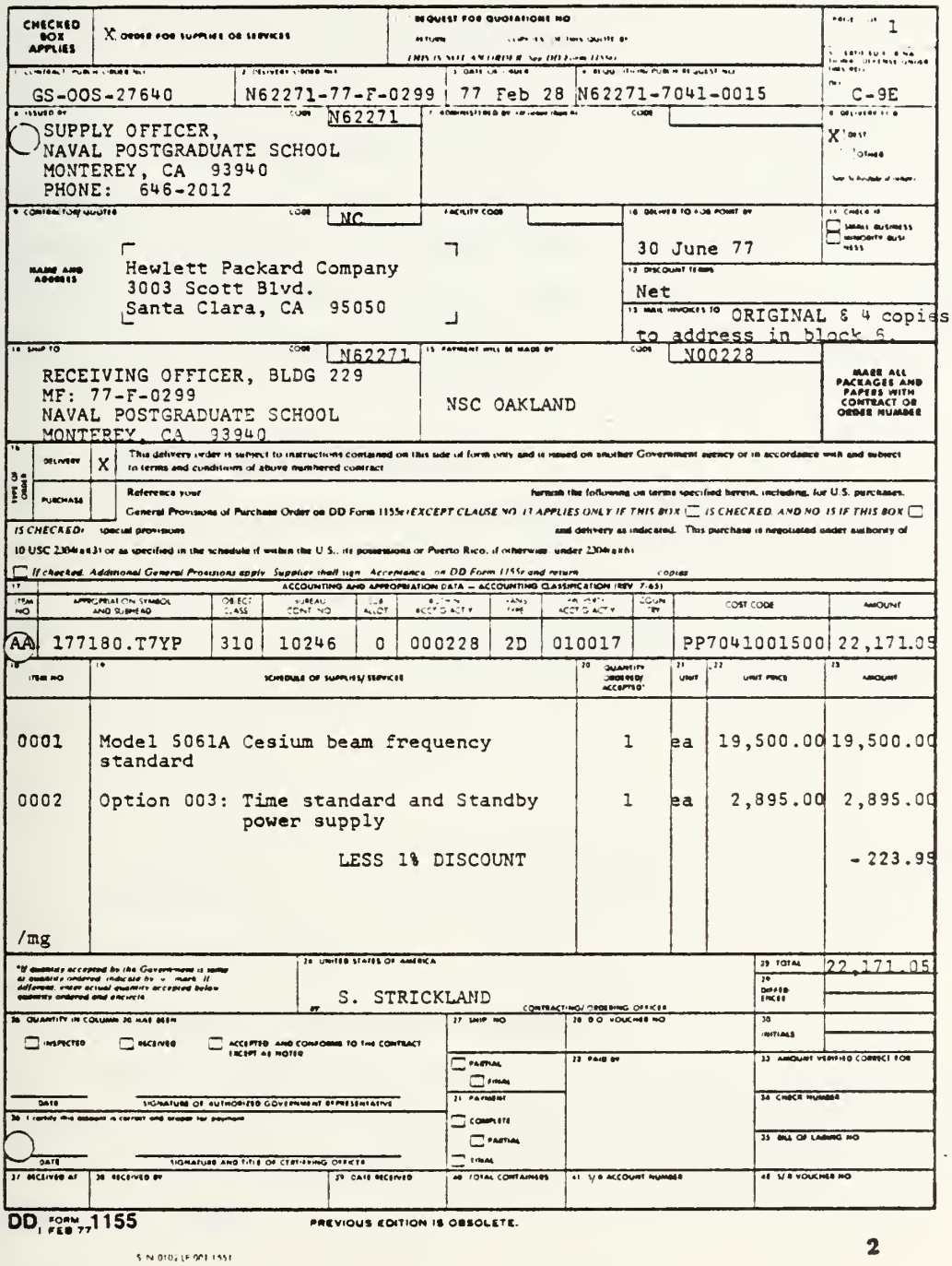
1. Supply Department

a. From the Issue Control Branch

In the case of Navy supply system purchases, a copy of the DD-1348 with the currently accurate price is routed back to the Comptroller Department. Issue Control maintains the status of requisitions within the Navy supply system and responds as necessary to requests for status from users.

b. From the Receipt Control Branch

A copy of the completed DD-1155 and each subsequent PO amendment is sent to the Comptroller. Further routing of PO copies is dependent on the funding source.



CHECKED BOX APPLIES: X ORDER FOR SUPPLIES OR SERVICES

REQUEST FOR QUOTATIONS NO

PAGE 1

CONTRACT/PURCHASE ORDER NO.	DELIVERY ORDER NO.	DATE OF ORDER	REQUISITION/PURCHASE REQUEST NO.	PRIORITY
GS-00S-27640	N62271-77-F-0299	77 Feb 28	N62271-7041-0015	C-9E

6 ISSUED BY — CODE N62271

SUPPLY OFFICER,
NAVAL POSTGRADUATE SCHOOL
MONTEREY, CA 93940
PHONE: 646-2012

7 ADMINISTERED BY (If other than item 6) — CODE

8 DELIVERY FOB: X DEST ☐ OTHER

9 CONTRACTOR/OFFEROR — CODE NC — FACILITY CODE

NAME AND ADDRESS
Hewlett Packard Company
3003 Scott Blvd.
Santa Clara, CA 95050

10 DELIVER TO F.O.B. POINT BY: 30 June 77

11 CHECK IF ☐ SMALL BUSINESS ☐ MINORITY BUSINESS

12 DISCOUNT TERMS: Net

13 MAIL INVOICES TO: ORIGINAL & 4 copies to address in block 6.

14 SHIP TO — CODE N62271

RECEIVING OFFICER, BLDG 229
MF: 77-F-0299
NAVAL POSTGRADUATE SCHOOL
MONTEREY, CA 93940

15 PAYMENT WILL BE MADE BY — CODE N00228

NSC OAKLAND

MARK ALL PACKAGES AND PAPERS WITH CONTRACT OR ORDER NUMBER

16 TYPE OF ORDER
- DELIVERY: X — This delivery order is subject to instructions contained on this side of form only and is issued on another Government agency or in accordance with and subject to terms and conditions of above numbered contract.
- PURCHASE: ☐ — Reference your ____ furnish the following on terms specified herein, including, for U.S. purchases, General Provisions of Purchase Order on DD Form 1155s (EXCEPT CLAUSE NO. 17 APPLIES ONLY IF THIS BOX ☐ IS CHECKED AND NO IS IF THIS BOX ☐ IS CHECKED) special provisions and delivery as indicated. This purchase is negotiated under authority of 10 USC 2304(a)(3) or as specified in the schedule if within the U.S., its possessions or Puerto Rico, if otherwise under 2304(a)(5).

☐ If checked, Additional General Provisions apply. Supplier shall sign Acceptance on DD Form 1155s and return ____ copies.

17 ACCOUNTING AND APPROPRIATION DATA — ACCOUNTING CLASSIFICATION (REV 7-63)

ITEM NO	APPROPRIATION SYMBOL AND SUBHEAD	OBJECT CLASS	BUREAU CONT NO	SUB ALLOT	B/A CODE ACCT'G ACTY	TRANS TYPE	AID (Agency) ACCT'G ACTY	SOURCE	COST CODE	AMOUNT
AA	177180.T7YP	310	10246	0	000228	2D	010017		PP7041001500	22,171.05

18 ITEM NO	19 SCHEDULE OF SUPPLIES/SERVICES	20 QUANTITY ORDERED/ ACCEPTED*	21 UNIT	22 UNIT PRICE	23 AMOUNT
0001	Model 5061A Cesium beam frequency standard	1	ea	19,500.00	19,500.00
0002	Option 003: Time standard and Standby power supply	1	ea	2,895.00	2,895.00
	LESS 1% DISCOUNT				- 223.95
/mg					

*If quantity accepted by the Government is same as quantity ordered, indicate by X. If different, enter actual quantity accepted below quantity ordered and encircle.

24 UNITED STATES OF AMERICA
BY S. STRICKLAND
CONTRACTING/ORDERING OFFICER

25 TOTAL 22,171.05
26 DIFFERENCES

27a QUANTITY IN COLUMN 20 HAS BEEN ☐ INSPECTED ☐ RECEIVED ☐ ACCEPTED AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED
DATE ____ SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE

27b SHIP NO ☐ PARTIAL ☐ FINAL

28 GAO VOUCHER NO

29 INITIALS

30 PAID BY

31 PAYMENT ☐ COMPLETE ☐ PARTIAL ☐ FINAL

32 AMOUNT VERIFIED CORRECT FOR

33 CHECK NUMBER

34 BILL OF LADING NO

36 I certify this account is correct and proper for payment.
DATE ____ SIGNATURE AND TITLE OF CERTIFYING OFFICER

37 RECEIVED AT | 38 RECEIVED BY | 39 DATE RECEIVED | 40 TOTAL CONTAINERS | 41 S/R ACCOUNT NUMBER | 42 S/R VOUCHER NO

DD FORM 1 FEB 77 1155 — PREVIOUS EDITION IS OBSOLETE.

S/N 0102-LF-001-1551

2

Figure 2.10 DD Form 1155 Purchase Order (DD-1155).

- A copy of the DD-1155 and each amendment is sent to the user department for all OPTAR Requisitions.
- A copy of the DD-1155 and each amendment is sent to the RAO in the case of all Reimbursable Fund Requisitions.

Receipt Control forwards information on the status of outstanding requisitions made with a DD-1155 to user departments only after receipt of a a memorandum request for status. In urgent cases status will be given in response to a telephone request [Ref. 20, p. 1]. Receipt Control requires the PO number to minimize time required to locate the file and get the latest requisition status.

2. Comptroller Department

a. Budgeting and Accounting Section

The DD-1348 from Issue Control or DD-1155 from Receipt Control is used to accurately debit the OPTAR or Reimbursable Fund account concerned. It is then routed to the Plant Account clerk.

b. PA Clerk

The PA clerk inserts the copy of the DD-1348 or DD-1155 received from Budgeting and Accounting in the PA requisition suspense file.

3. Research Administration Office

RAO forwards the copy of each PO and PO amendment received from Supply to the user department after an accurate debit of the RAO Reinbursable Funds account record concerned is made.

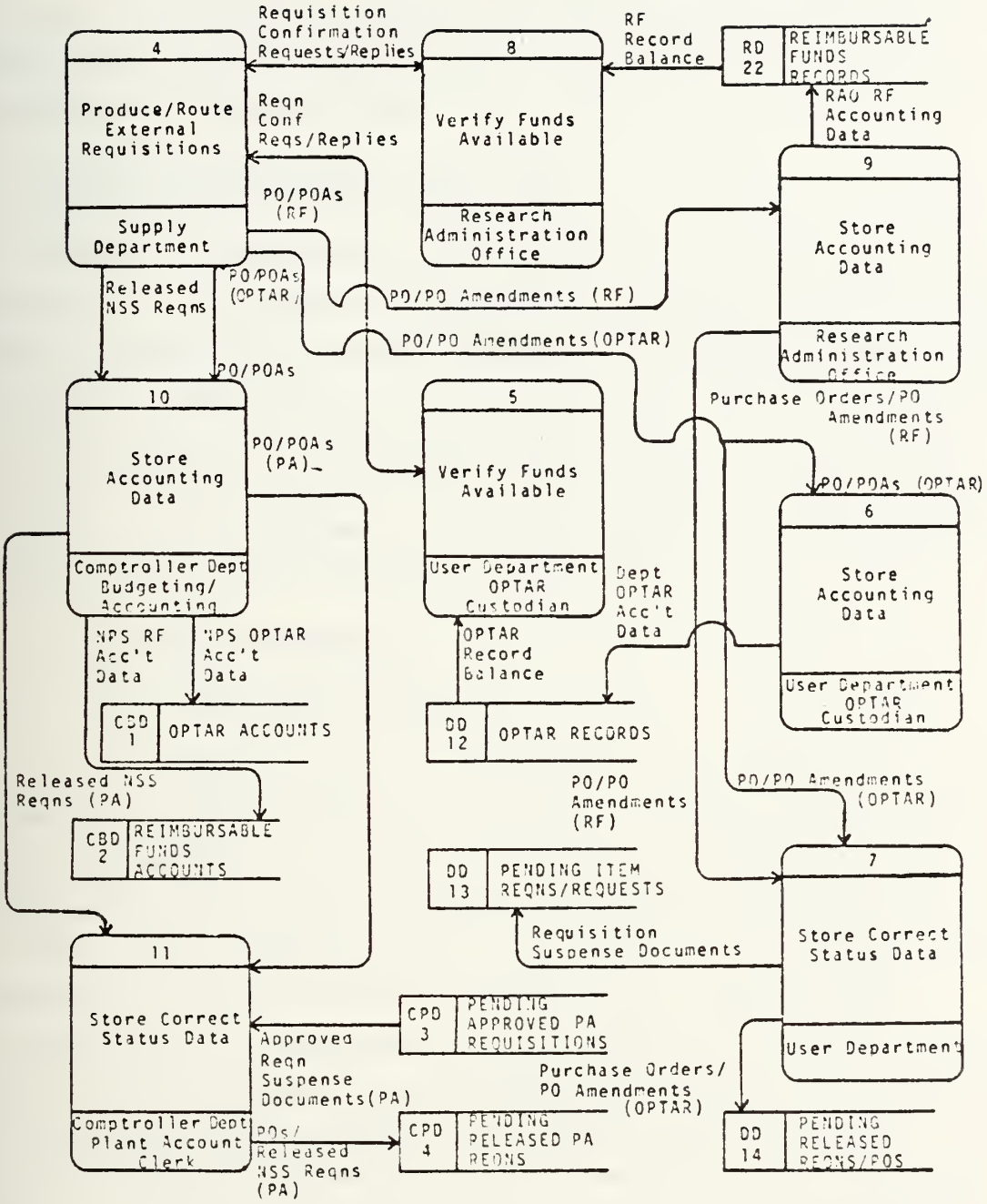


Figure 2.11 Requisition Feedback Data Flow.

4. User Department

After it is received, the user department will make a correct debit of its locally maintained OPTAR log for OPTAR requisitions and file the copy of the DD-1155 in a requisition suspense file.

E. PA EQUIPMENT RECEIPT DATA FLOW

The data transactions discussed below occur after the requisitioned equipment is physically received by NPS. Two types of data are involved; invoice data and equipment data. The Supply Department is concerned with invoice data (Supply Receipt Data); its flow is pictured in Figure 2.12. The data of most use to the user department for accountability and use of the equipment is the equipment data (User Receipt Data); Figure 2.15 illustrates its flow.

1. Supply Department

a. Receiving Division

When an item is received at the Receiving warehouse, personnel there will match the invoice information with information on a copy of either the Purchase Order or the original DD-1348 to identify the equipment destination at NPS. After this is done, a phone call to the department concerned is made to notify the ultimate user of item arrival and it is delivered to the building and room designated. The documents to be delivered to the user department are delivered with the item. At the time of delivery a copy of the shipping documentation is stamped with a "Received" stamp and is signed by the person receiving the equipment. Receiving will then forward this receipt to Receipt Control.

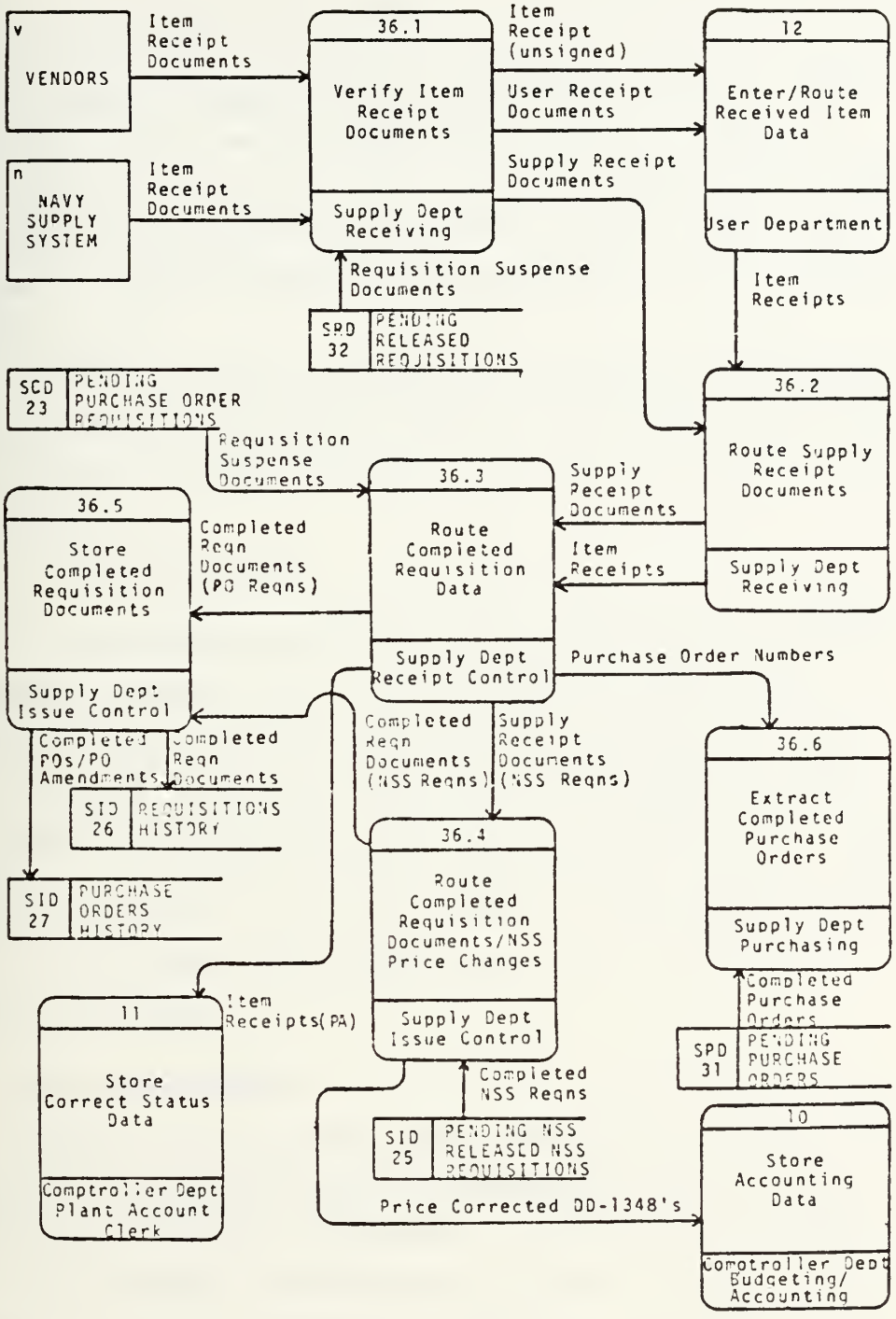


Figure 2.12 Supply Department Item Receipt Data Flow.

b. Receipt Control Division

Once the signed receipt for equipment delivery is received by Receipt Control, a copy of receipts for all PA elgible items is sent to the Comptroller for the Plant Account clerk. For requisitions from vendors, Receipt Control then closes out the file on the requisitioned item and forwards the contents to the Issue Control clerk who files them in the historical file maintained by the Supply Department.

If the item was ordered through the Navy supply system, the receipt documentation is turned over to Issue Control without further action following forwarding of the PA item receipt.

c. Issue Control

As mentioned above, price changes in a commercial requisition are rare. In the case of equipment obtained through the Navy supply system, however, price changes occur on a regular basis and adjustment of the amount expended after the equipment has arrived is a common occurrence. When this occurs, a copy of the receipt documentation indicating the final price of the equipment item is sent to the Comptroller Department for the Budgeting and Accounting Division.

2. User Department

Usually the ultimate user who initiated the requisition is the person who signs the receipt for delivery. It is the responsibility of whoever receives the equipment to notify the equipment coordinator or person in the department responsible for the equipment inventory. If the item is PA-elgible, the person in the department responsible for recording and forwarding data to enter the equipment into

the PA should be notified as well. (Usually this individual will be the same person responsible for the department equipment inventory.) At this time, two events should take place on PA-elgible equipment (together these are called "plant accounting" the equipment):

- A Navy ID (NID) number sticker with the Plant Account number is placed on the equipment and recorded on a Property Record Card (PRC). An example is pictured in Figure 2.13.
- The data on the Plant Account item entered by the user [Ref. 11] on the new Plant Account item is entered on the PRC (usually handwritten) which is forwarded to the Plant Account clerk.

In the matter of assignment of individual accountability for equipment items, this is not usually done (nor is it required) due to the limited degree in which access can be controlled in the academic environment at NPS. If assigned, custody or responsibility is usually recorded in a manual logbook. One department (Operations Research) maintains its own department equipment database on a microcomputer with this information [Ref. 21].

3. Comptroller Department

From the data forwarded from the Supply Department, Budgeting and Accounting is concerned solely with accounting data from the invoice, while the Plant Account clerk only uses the signed receipt. The flow of data from Supply is illustrated in Figure 2.14.

a. Budgeting and Account Section

In the case of equipment received through the Navy supply system whose price has changed since requisition, the Budgeting and Accounting Division makes an

DOD PROPERTY RECORD

1. ☒ ACTIVE ☒ INITIAL ☐ IDLE ☐ CHANGE | 2. JULIAN DATE: 7334 | 3. I.D./GOVERNMENT TAG NO.: 62271 017218 | Form Approved Budget Bureau No. 22-R0399

SECTION I - INVENTORY RECORD FLEX (52)

4. COMMODITY CODE	5. STOCK NUMBER	6. ACQUISITION COST	7. TYPE CODE	8. YR OF MFG	9. POWER CODE	10. STATUS CODE	11. SVC CODE	12. COMMAND CODE	13. ADM OFFICE CODE
6625-7720-3880	6625	22171	1	76	11	1	1	00062	228

14. NAME OF MANUFACTURER	15. MFR'S CODE	16. MANUFACTURER'S MODEL NO.	17. MANUFACTURER'S SERIAL NO
HEWLETT PACKARD CO	28480	MOD 5061A	1640A01348

18. LENGTH	19. WIDTH	20. WEIGHT	21. WEIGHT	22. CERTIFICATE OF NON-AVAILABILITY NUMBER	23. ASCC NO.	24. AAC	25. CONTRACT NUMBER
19 IN	17 IN	9 IN	74	N62271-7041-0021			PO N62271-77-F-0299

26. DESCRIPTION AND CAPACITY

FREQUENCY STANDARD, CESIUM, BENCH MOUNT

5 MHZ FREQ OUTPT, +1 X 10^{-11} ACCY, 1 V OUTPT. BNC CONNECTION. EQUIPPED W/OPTION 3 TIME STANDARD & STANDBY POWER SUPPLY. 1 PPS OUTPT, 20 USEC WIDTH, 6 DIGIT DIG CLOCK DISPLAY. 1 USEC TO 1 SEC PULSE ADJ RG. 30 MIN STANDBY POWER.

6625-AE

CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

27. ELECTRICAL CHARACTERISTICS

QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER

28. PRESENT LOCATION

NAVAL POSTGRADUATE SCHOOL, MONTEREY, CALIF 409 232

28a. DPSC CONTROL NO.

29. POSSESSOR CODE: 62271(7685435)

SECTION II - INSPECTION RECORD

	YES	NO		YES	NO
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?			42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS? $		
31. HAS ITEM BEEN REBUILT/OVERHAULED? DATE IF SO, WHEN?			43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.		
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.			44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.		
33. WAS ITEM INSPECTED UNDER POWER? IF NOT EXPLAIN UNDER REMARKS BELOW			45. ARE SCALES, DIALS, AND GUAGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW		
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW			46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW		
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW			47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW		
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?			48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?		
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?			49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 28 ABOVE.		
38. WAS ITEM LAST USED ON A FINISHING OPERATION?			50. ESTIMATED COST FOR PACKING, CRATING, HANDLING. $		
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?			51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.		
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENT? IF NOT, GIVE THEIR REPLACEMENT COST $			52. CONDITION CODE. N1		
41. IS ITEM IN OPERABLE CONDITION?			53. OPERATING TEST CODE.		

SECTION III - REMARKS

54. REMARKS

STUB 7041-0015

REC: 6/3/77

CONS: HEWLETT PACKARD, SANTA CLARA, CALIF

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

SECTION IV - DISPOSITION RECORD

55. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	56. TYPE OF DISPOSITION	56a. DATE OF DISPOSITION AND PROCEEDS IF SOLD
	☐ DONATION ☐ DESTRUCTION ☐ SALE ☐ ABANDONMENT	

SECTION V - VALIDATION RECORD

57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S))

D. CRAIN, PLANT ACCT CLERK

DD FORM 1 FEB 66 1342

PREVIOUS EDITIONS OF DD FORM 1342 ARE OBSOLETE. REPLACES DD FORMS 1342M, 1342S, AND 1342SM WHICH ARE OBSOLETE.

S/N-0102-015-0001

Figure 2.13 DD-1342 - Property Record Card (PRC).

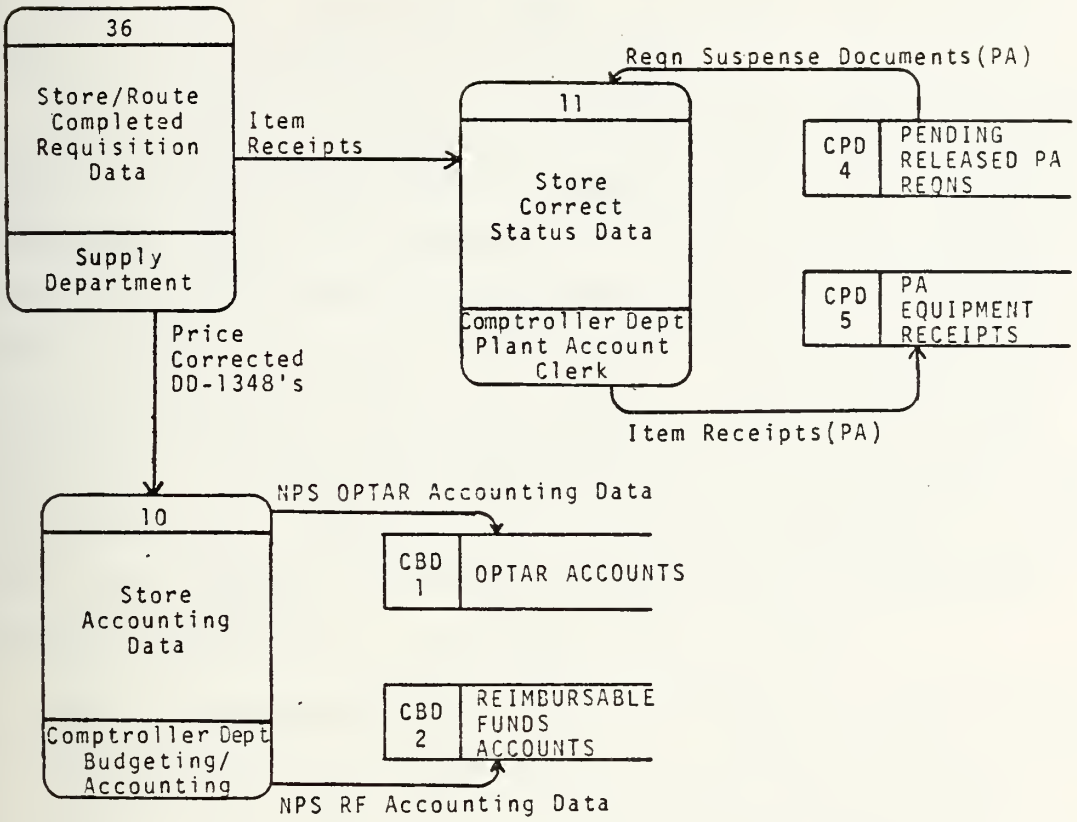


Figure 2.14 Comptroller Department Receipt Invoice Data Flow.

accurate debit of the account concerned upon receipt of the updated DD-1348 from the Supply Department.

b. Plant Account Clerk

The Plant Account clerk uses the signed receipt document (invoice information) she receives from the SD Receipt Control Division as a suspense document. It will serve as her reminder pending arrival of the handwritten PRC and NID number (equipment data obtained from "plant accounting") from the user department. If these items of information are not forthcoming within a reasonable period

of time, she initiates a request (usually by telephone call or memorandum) to the department individual who normally handles Plant Account administration.

Upon receipt of the handwritten PRC, she ensures all the information required from the user department is present and adds data she is required to enter. If there is necessary information missing from the original handwritten copy of the PRC, the PA clerk must notify the department or send the PRC back to get the needed information. When the information is complete, she types an original and four copies of the PRC; she sends one copy back to the user department and forwards three copies to NSC Oakland. Using the information received from the user department, the PA clerk then updates the files she maintains on NPS Plant Account equipment in the manner noted below.

- The PA Equipment Master file is updated by removing the last page of the ledger from the binder, typing in the latest entry, and returning the page to the binder. This file is maintained in the chronological order in which equipment is formally entered into the Plant Account (by notification and forwarding of PRC's to NSC Oakland, the command to which NPS is accountable for PA equipment).
- The Property Record Cards file is updated by inserting the original of the PRC. It is indexed by department and in the order of NID numbers.
- The PA Equipment NID Numbers file is updated with a typewritten entry on the appropriate page from the three ring binder in which it is maintained. This file is initially used by the PA clerk to keep a record of groups (typically 50 at a time) of small metallic stickers with consecutive NID's which she periodically forwards to the user departments (These stickers are the ones mentioned above which are attached to each item of Plant Account equipment).

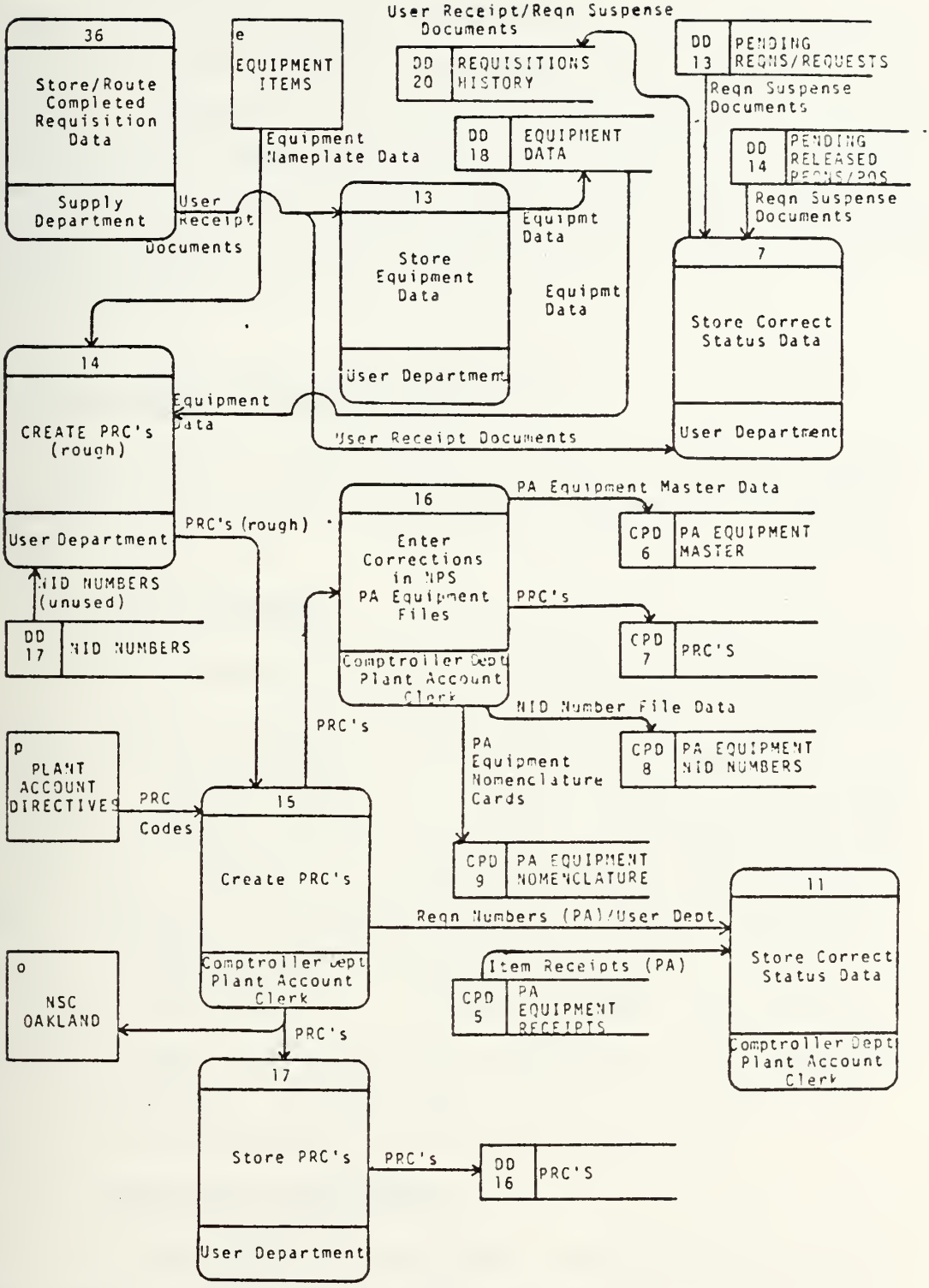


Figure 2.15 PA Equipment Receipt — Equipment Data Flow.

- The PA Equipment Nomenclature file is updated by inserting a PA Equipment Nomenclature Card with the new PA item's nomenclature, NID number, and user department on it. The data in this file on each individual item is contained on these individual 5 x 8 inch cards. It is maintained in alphabetical order of equipment nomenclature and permits any particular type of equipment at NPS to be located with ease.

F. PA EQUIPMENT INVENTORY DATA FLOW

A Plant Account inventory is taken every third year in accordance with current directives. Figure 2.16 depicts inventory data flow.

1. User Department

Many departments rely on the Plant Account equipment inventory listing maintained by the computer program initiated by the Dean of Research to assist in equipment management. Others maintain a manual log which has equipment data including location recorded in it for use during an inventory. Using the equipment location information, a visual inventory is conducted and the results forwarded to the Plant Account clerk. "Plant accounting" is done at this time on any Plant Account elgible equipment found during the inventory which is not on the PA equipment list maintained by the department. If equipment cannot be located, the survey procedures detailed below are initiated.

2. Comptroller Department

The Comptroller Department, which maintains cognizance over the NPS Plant Account, initiates directives concerning the inventory of PA equipment.

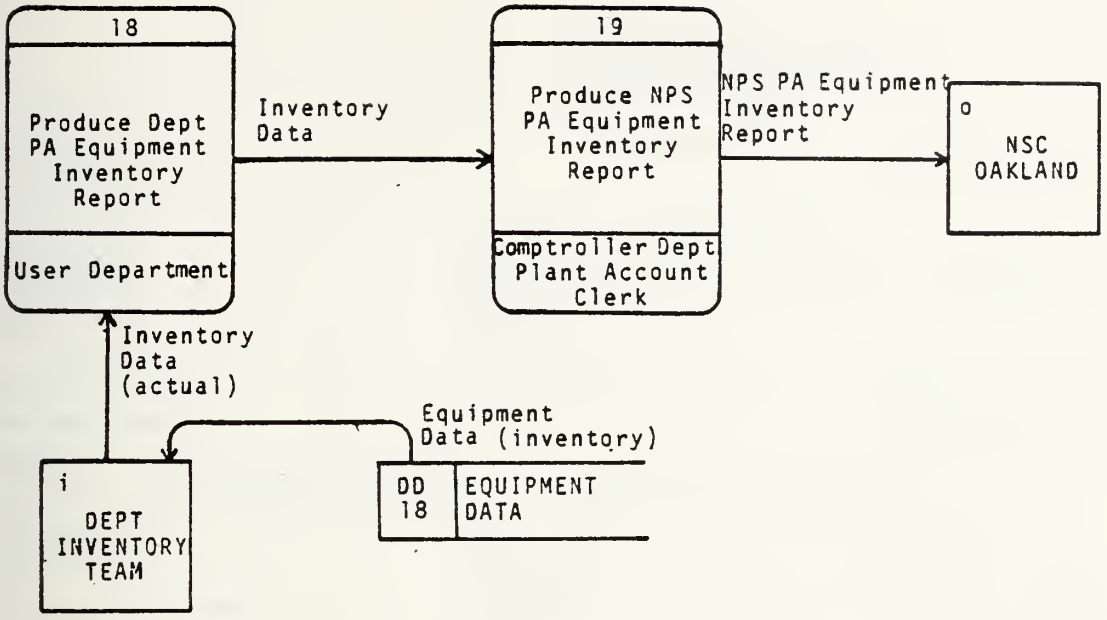


Figure 2.16 PA Equipment Inventory Data Flow.

After receiving the results of the department inventories, the Plant Account clerk will update the PA records and forward a report of the NPS inventory results to NSC Oakland. This typically includes addition of PA-elgible items located during the inventory following department "plant accounting" and deletion of missing equipment following completion of survey procedures.

G. PA EQUIPMENT CALIBRATION DATA FLOW

1. User Department

Only the user department is concerned with the calibration and maintenance of equipment. Data flow within the department is pictured in figure 2.17. The usual method of determining when periodic action must be taken is by means of a calibration record. This will be maintained by the

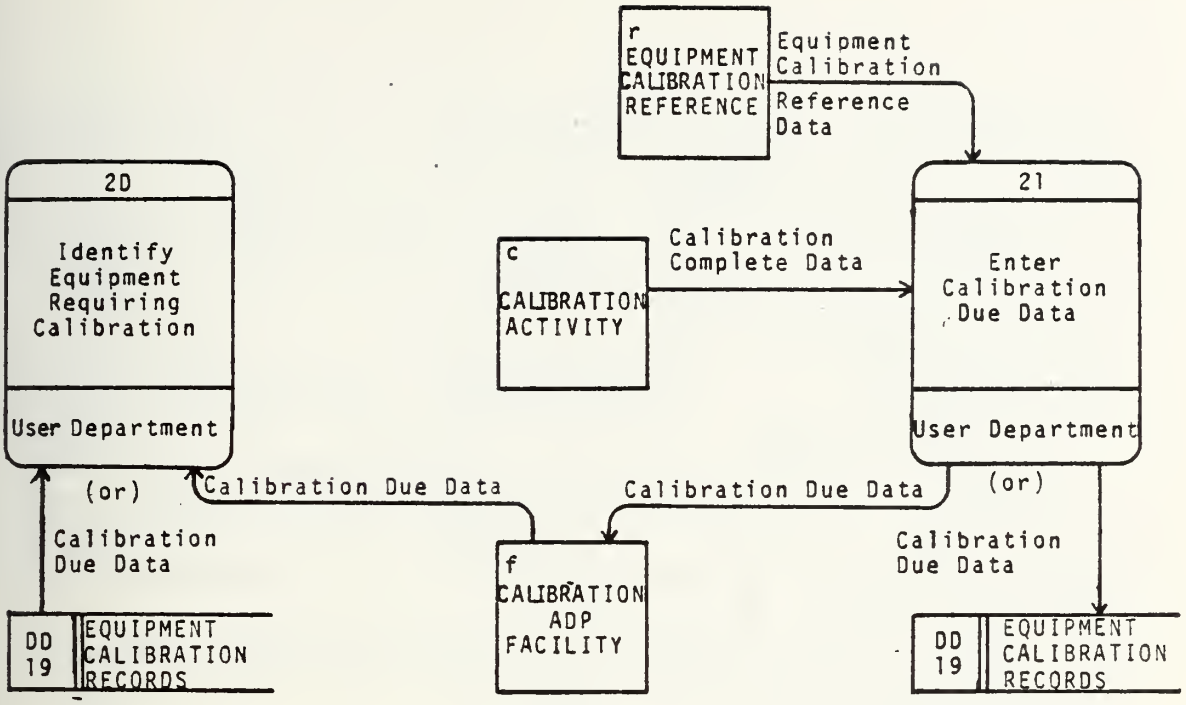


Figure 2.17 PA Equipment Calibration Data Flow.

equipment coordinator or an individual user. The calibration record may be maintained on a computer printout provided by an external command or in a notebook.

H. PA EQUIPMENT CUSTODY CHANGE DATA FLOW

If a change of PA equipment location is within a department, only that department inventory record is changed. Although it would be helpful for records accuracy, there is currently no requirement to notify the PA clerk of a location change. If there is a change of user departments, however, the PA clerk must be notified to permit her to update her records. This process is depicted in Figure 2.18.

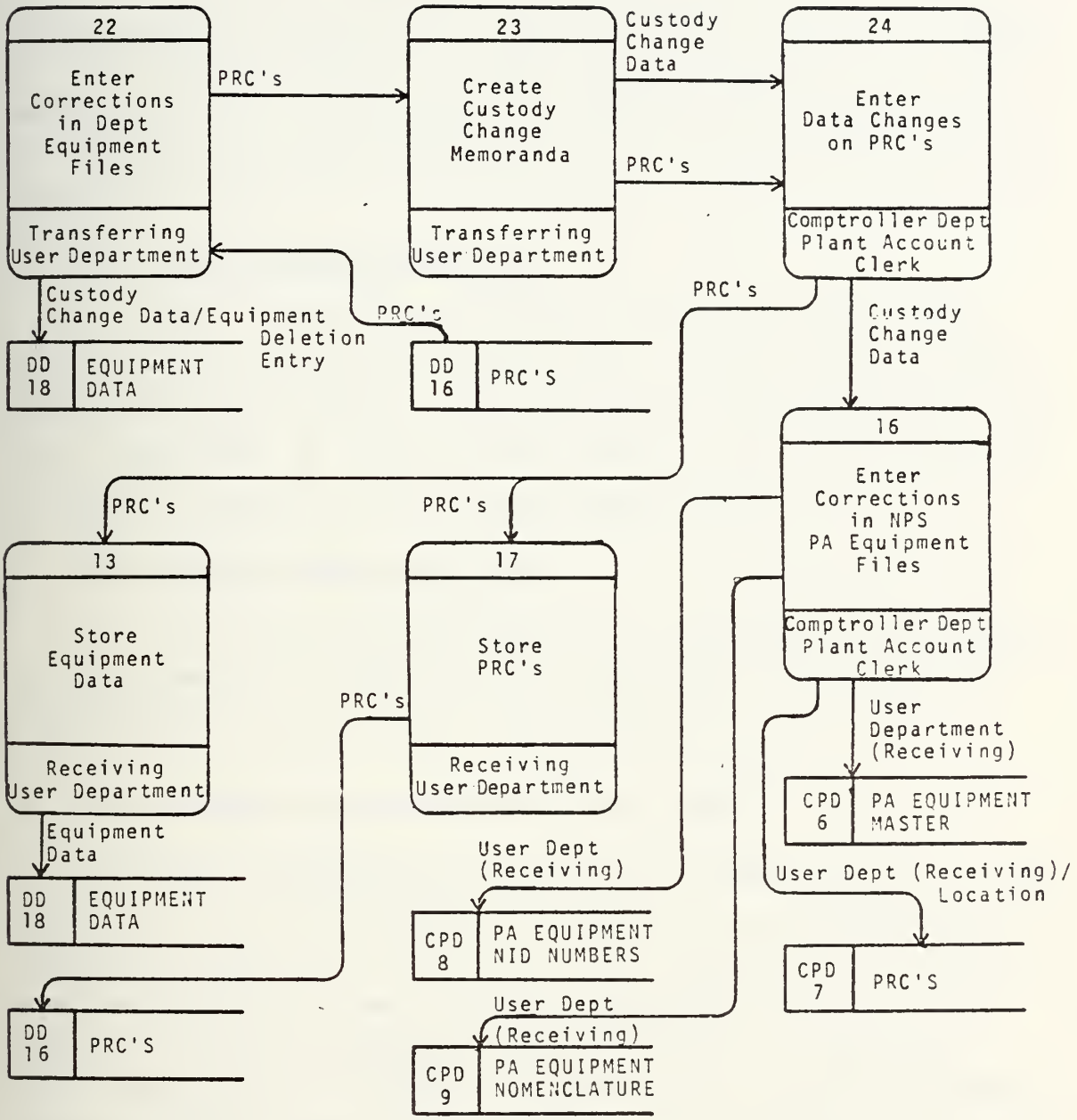


Figure 2.18 PA Equipment Custody Change Data Flow.

1. Transferring User Department

Data on equipment transferred to another department is deleted by the transferring department from its department equipment inventory. If the computer listing is used, it is a simple matter to change the department code in the equipment's data entry record. The department PRC is sent to the PA clerk with notation of the new user department and location.

2. Comptroller Department

Upon receiving the change information from the department(s) concerned, the PA clerk updates her PA equipment information files. She will enter the new location and user department on the user PRC (and her file original) and forward the copy to the gaining department.

3. Gaining User Department

The department gaining the PA equipment will ensure the equipment is entered in its equiupment inventory and file the PRC received from the PA clerk.

I. PA EQUIPMENT TRANSFER/SURVEY DATA FLOW

Although the ultimate result is the same, removal of PA equipment from the NPS inventory occurs by transfer of the equipment from NPS or by survey. The latter is an administrative procedure used to report equipment which is physically lost or damaged beyond repair. A survey is justification for deleting the item from the Plant Account. These processes are addressed separately in this section and pictured in Figure 2.19 and Figure 2.24, respectively.

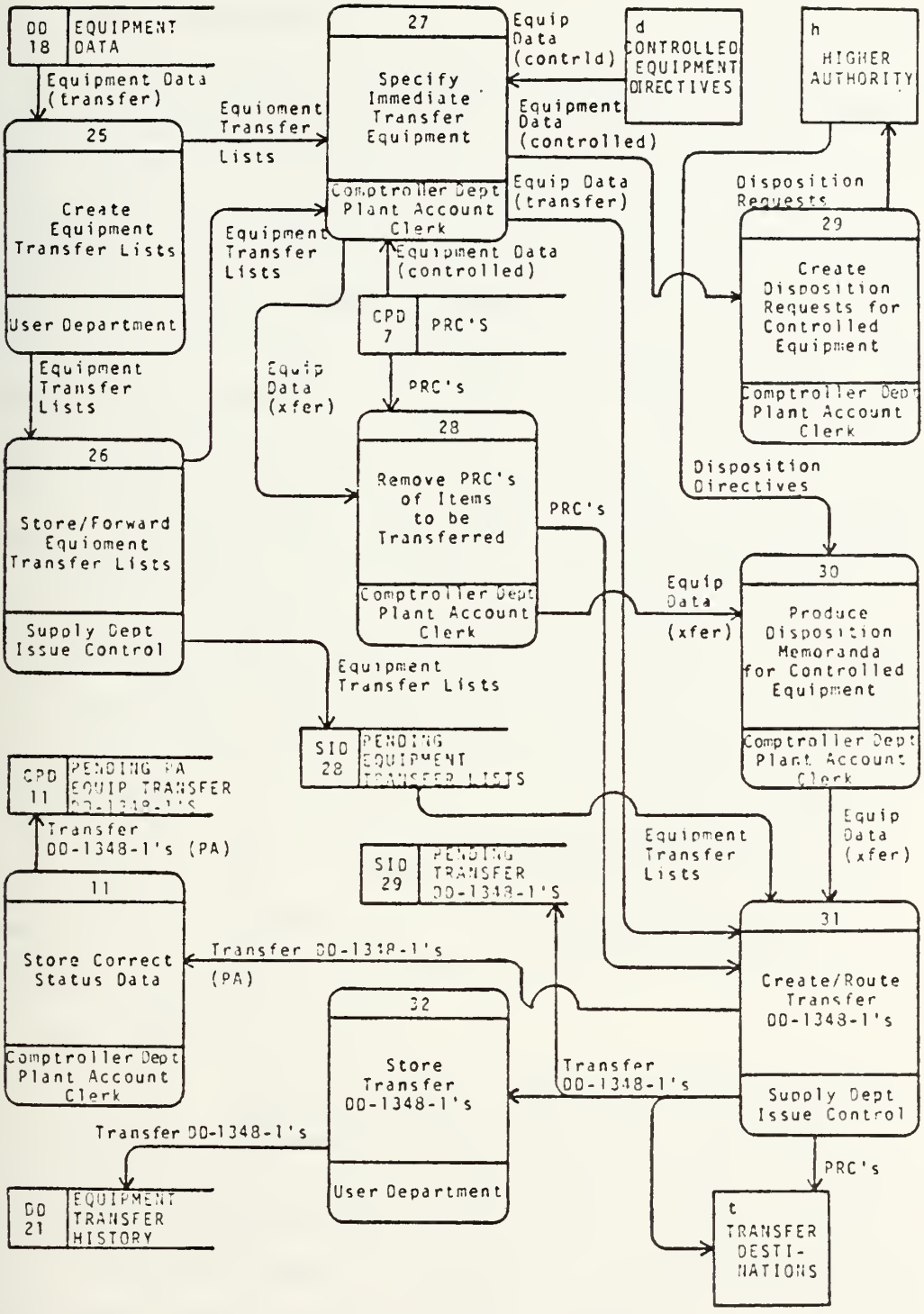


Figure 2.19 PA Equipment Transfer Data Flow.

1. Equipment Transfer

a. User Department

In the case of equipment which is no longer useful or obsolete, a memorandum is forwarded to the Supply Department listing the equipment to be turned in to the Defense Property Disposal Office (DPDO) at Fort Ord (The locally prepared NPS Excess Property form pictured in Figure 2.20 should be used for each equipment item on the transfer list but rarely is). If the equipment is still usable and will simply be transferred to another command which can use it, the same procedure is followed. The Supply Department will accept information which is sufficient to identify the equipment on a memorandum; this usually inclues item nomenclature, manufacturer, model number, serial number, and NID number. When the equipment is ultimately picked up by Supply Department Receiving Division personnel, the equipment is deleted from the department inventory of equipment. A copy of the Transfer DD-1348-1 mentioned below is provided to the department as a transfer receipt. Whether its destination is another user command or the Defense Property Disposal Office (DPDO) at Fort Ord, the PRC held by the department is not turned in with the equipment, but it retained or destroyed as desired by the department.

b. Supply Department

(1). Issue Control. After receipt from the user department, the memorandum listing the equipment proposed for transfer is sent to the Plant Account clerk and action held in abeyance until its return. After the list is returned by the PA clerk, a DD-1348-1 is prepared listing the equipment elgible for immediate transfer. The DD-1348-1 is used as an invoice accompanying items delivered by military activities to other military activities. An example of

Date 2 Feb 81

From: Chairman/Department Head Electrical Engineering Dept
To: Supply Officer (Code 42)

Subj: Excess property available for screening, redistribution or disposal

1. The following is excess to this department and available for redistribution. Material may be screened and inspected at location indicated:

a. Noun nomenclature Cesium Beam Frequency Standard
b. NSN (National Stock Number) NA
c. Plant Account Number (if applicable) 62271 017218
d. Location Bldg 232 Room 409
e. Indicate Class III (XX) or DIPEC Class IV ( )
f. Detailed item nomenclature with related characteristics, capabilities, and special instructions Freq Standard; Bench mount; 5MHz output; 1 PPS o/p; 1 V output; BNC connections, 1 usec to 1 sec pulse adj range; 6 digit digital clock display; includes time std and stdby power supply
g. Manufacturer, model and serial number HEWLETT PACKARD/5061A/1640A01348
h. Quantity One
i. Original or acquisition cost per item/unit $ $22,171.05
j. Current condition code (refer to Chapter 6 of Desk Guide) B
k. Security Classification Unclassified
l. Contact (name and telephone no.) Bob Donat, X2345

Chairman/Department Head

Copy to:
Code 00224 (Plant Property Items Only)

Figure 2.20 NPS Excess Property Transfer Memorandum.

a DD-1348-1 is pictured in Figure 2.21. A copy of the DD-1348-1 is routed to the Comptroller Department for the PA clerk. After preparation the the Transfer DD-1348-1, the SD Receiving Division makes arrangements with the user department for physical removal of the equipment.

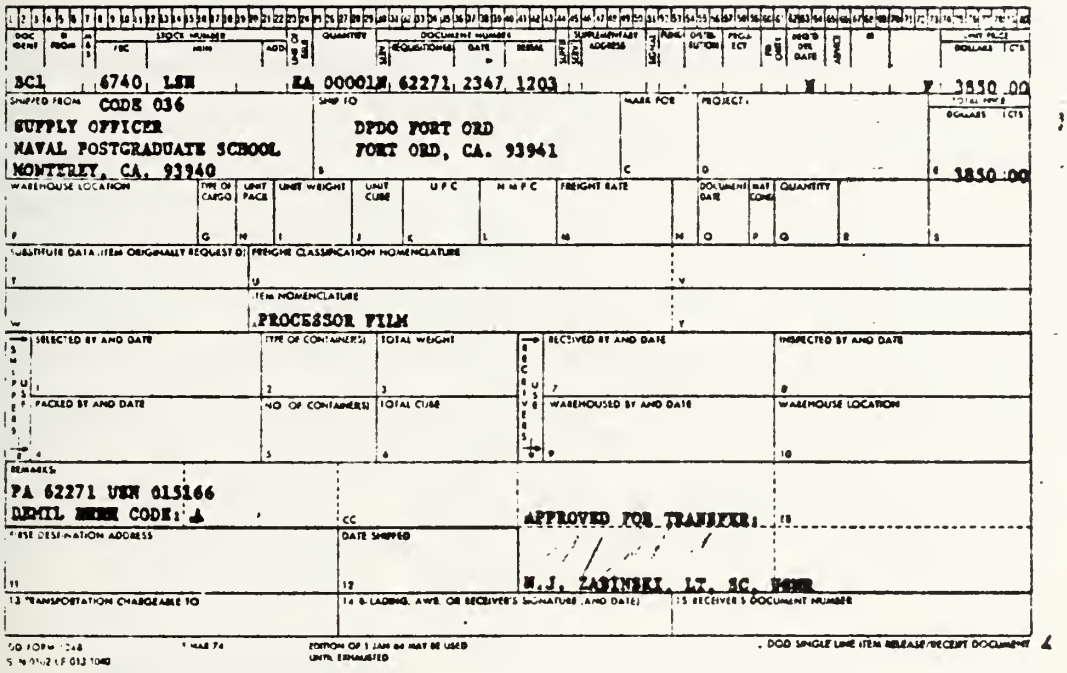


Figure 2.21 Transfer DD-1348-1.

After the equipment is received at its transfer destination, a copy of the DD-1348-1 is signed by the receiving individual to to verify receipt. This copy is returned to the NPS Supply Department. A copy of this signed DD-1348-1 is placed in the historical file and another copy is sent to the PA clerk.

c. Comptroller Department

(1). Plant Account Clerk. As previously noted, the PA clerk reviews all transfer requests prior to the preparation of the Transfer DD-1348-1. She will identify any equipment which is automated data processing equipment (ADPE) or other equipment controlled by higher authority requiring authorization for removal from NPS. The PA clerk

then prepares a letter requesting the necessary authorization from the proper authority. After her review of the user department memorandum, the items elgible for immediate transfer are noted and the list returned to the Supply Department along with a copy of the PRC for those items to be transferred with them.

The returned copy of the DD-1348-1 prepared by the Supply Department is used as the suspense document for equipment deletion from the PA by the PA clerk. She disposes of it when the Transfer Receipt DD-1348-1 is received from the command receiving the equipment through the Supply Department. The data flow associated with the return of the Transfer Receipt DD-1348-1 is pictured in Figure 2.22.

2. Equipment Survey

a. User Department

The user department initiates an informal survey request using a Survey Certificate (DD Form 2090 or "DD-2090") for equipment which has been lost, destroyed, or is beyond economical repair. A DD-2090 is pictured in Figure 2.23. (Formal surveys in the case of negligence and imputed criminal culpability require use of a formal survey form, DD-200. This type of survey is very rarely done.) Once approved, the completed survey request is forwarded to the Supply Department.

b. Supply Department

When an informal survey is conducted, the DD-2090 is passed to the Supply Officer for final approval which is indicated by his signature on the form. (A formal survey requires recommendation of approval from an appointed survey board; actions are otherwise identical for PA

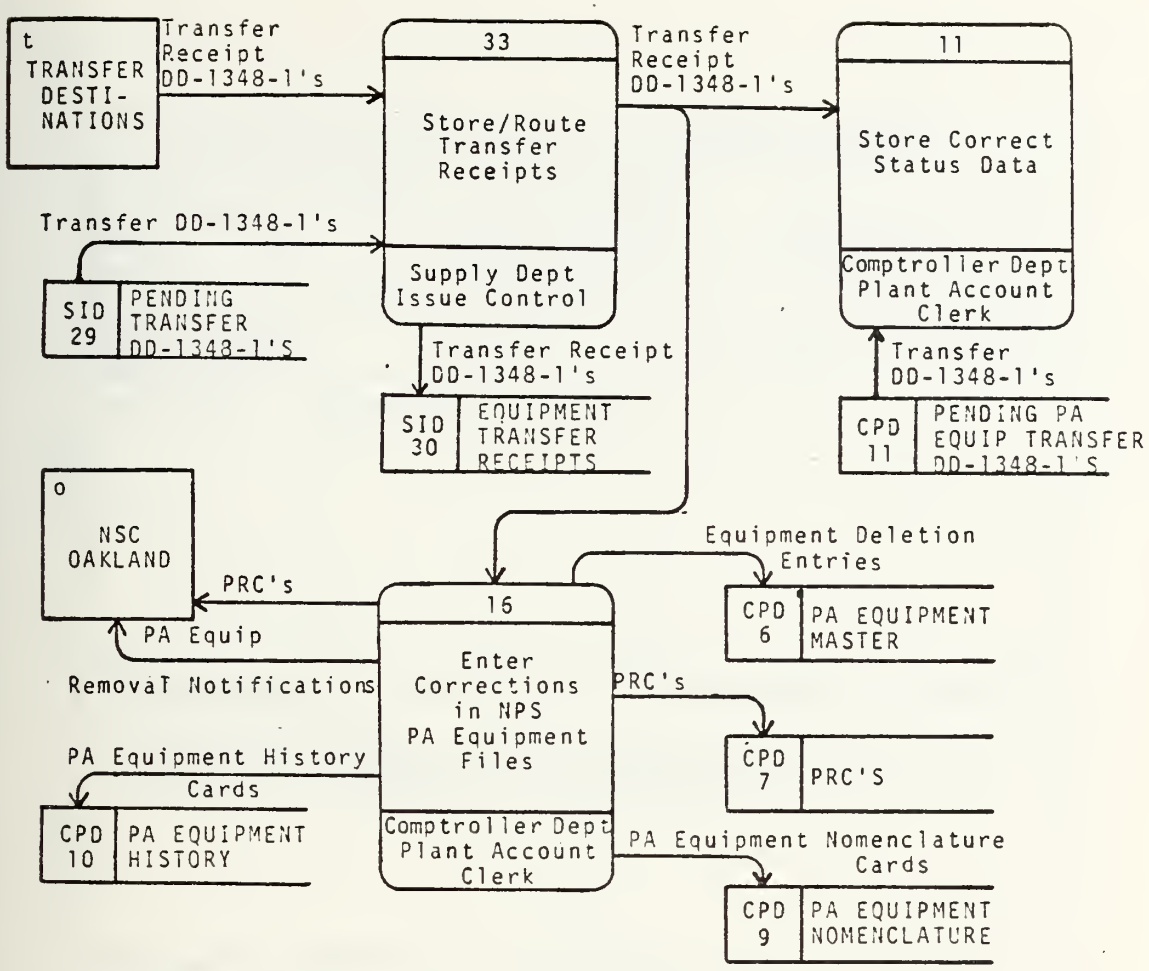


Figure 2.22 Equipment Transfer Receipt Data Flow.

purposes.) The survey form is then filed and copies are then sent to the originating department and to the PA clerk. [Ref. 22]

c. Comptroller Department

(1). Plant Account Clerk. Upon receipt of the approved DD-2090 from Supply, the PA clerk will make appropriate deletions to the PA files and forward these transactions to NSC Oakland with the approved DD-2090.

GPLD *(GOVERNMENT PROPERTY LOST OR DAMAGED)* **SURVEY CERTIFICATE**

1. TO (Name and Address of Reviewing Authority)	2. FROM (Name and address of Activity assigned responsibility for GPLD)	3. NAME AND GRADE OF PERSON PERFORMING OR DIRECTING RESEARCH
DEAN, SCIENCE & ENGINEERING NAVAL POSTGRADUATE SCHOOL MONTEREY, CA 93940	CHAIRMAN, DEPARTMENT OF PHYSICS & CHEMISTRY NAVAL POSTGRADUATE SCHOOL MONTEREY, CA 93940	RONALD L. MACDONALD 4 VOUCHER NUMBER N 62271-1266-0935

5. I certify that the [ ] lost [X] damaged items described below was not caused by [ ] simple [X] gross negligence, willful misconduct or deliberate unauthorized use. I further certify that the loss of or damage to the items occurred under the circumstances described herein.

6. NATIONAL STOCK NO. OR MANUFACTURERS PART NO.	7. NOMENCLATURE	8. QUANTITY	9. UNIT OF ISSUE	10. UNIT COST	11. EXTENDED COST
NON-STANDARD	DIGITAL MULTIMETER, FLUKE MODEL 8024A, S/N 2337636	00001	EA	250.00	250.00
12. TOTAL COST OF LISTED ITEMS →					$250.00

13. CIRCUMSTANCES OF LOSS OR DAMAGE

ON FRIDAY, SEPTEMBER 18, 1981, THE METER WAS ACCIDENTLY KNOCKED OFF THE EDGE OF A WORKBENCH DURING THE COURSE OF SETTING UP A LAB EXPERIMENT. THE METER IS BEYOND ECONOMICAL REPAIR.

14. TYPED NAME & GRADE OF ACCOUNTABLE/RESPONSIBLE OFFICER	14a. SIGNATURE	14b. DATE
KENNETH C. JONES	Kenneth C. Jones	23 SEP 81

THIS PORTION TO BE COMPLETED BY REVIEWING AUTHORITY AND RETURNED TO ACTIVITY INDICATED IN ITEM NO. 2

15. I have reviewed the evidence pertaining to the loss or damage and [X] agree [ ] do not agree that the loss or damage to the property was not due to [ ] simple [X] gross negligence, willful misconduct, or deliberate unauthorized use. The following action is authorized:

[X] a. An inventory adjustment for the property which was not lost through [ ] simple [X] gross negligence, willful misconduct, or deliberate unauthorized use.

[ ] b. Repair the damaged property and charge to O&M/stock fund as fair wear and tear as damage was not caused by gross negligence, willful misconduct, or deliberate unauthorized use.

[ ] c. The circumstances surrounding the loss or damage warrant the processing of a report of survey, DD Form 200, to be to be initiated immediately.

[ ] d. Other action (Specify): _____

16. TYPED NAME & GRADE OF REVIEWING OFFICER	16a. SIGNATURE	16b. DATE
JAMES W. WADE	James W. Wade	30 SEP 81

DD FORM 1 SEP 77 2090 S/N 0102-LF-002-0900 GBLD (Government Property Lost or Damaged Survey Cert.)

Figure 2.23 Survey Form 2090 (DD-2090) -- Informal Survey.

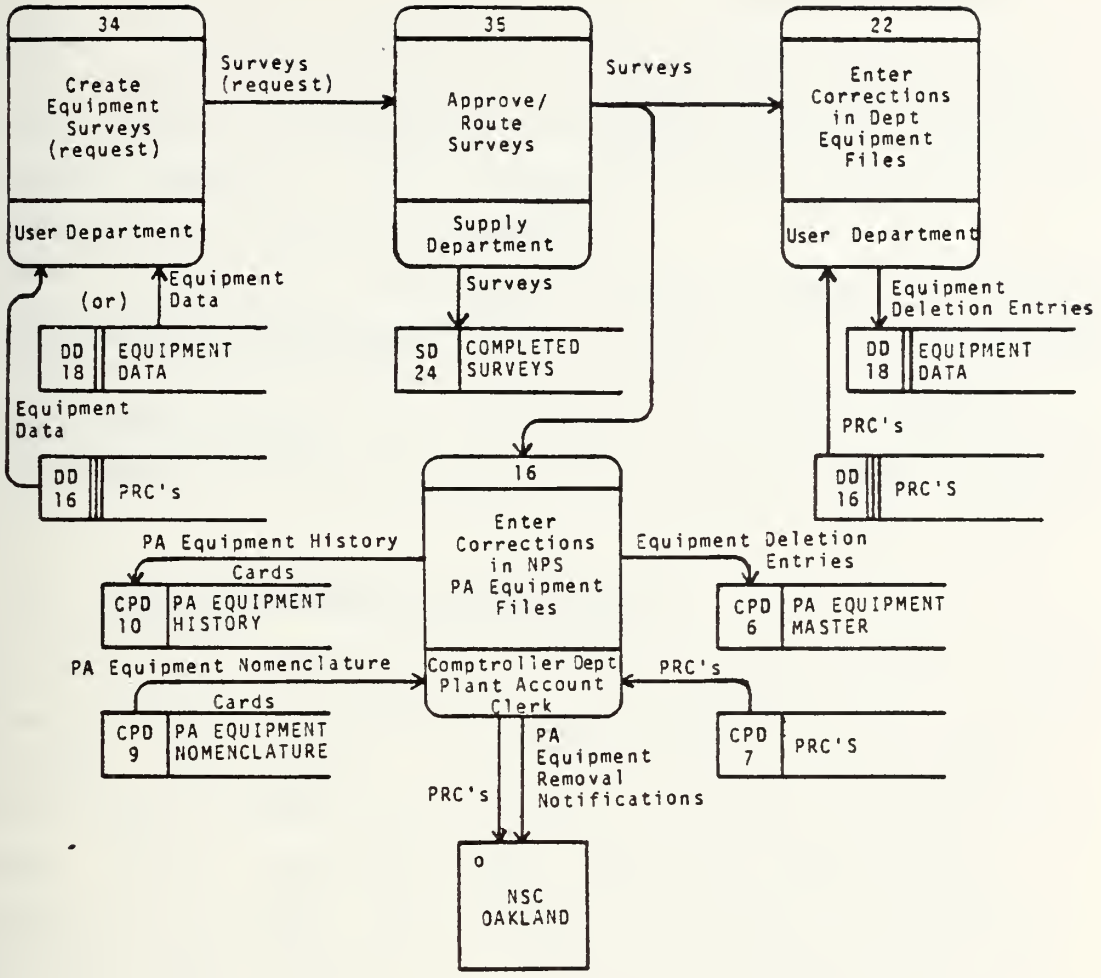


Figure 2.24 PA Equipment Informal Survey Data Flow.

3. NPS Plant Account Equipment Deletion Actions

In the case of both equipment transfer and survey, once the PA clerk has the necessary authorizing document, deletion of equipment from the PA records is done in the following manner:

- A single line is drawn through the equipment record entry of the deleted equipment item in the PA Equipment Master file.

- The PRC original is removed from the Property Record Cards file for forwarding to NSC Oakland.
- No deletion is made from the PA Equipment NID Numbers file unless the equipment was destroyed or lost (An NID number remains on a PA equipment item as long as it remains in government custody).
- The PA Equipment Nomenclature Card is removed from the PA Equipment Nomenclature file, disposition of the equipment is noted on it, and the card is is placed in the PA Equipment History file. This file contains cards on all equipment previously deleted from the NPS Plant Account.

4. The PA Equipment History File

This file is not required to be maintained. It has little value on a day to day basis, but is important for tracing purposes. For example, it could be used to help locate items of PA equipment which require a safety alteration or change. If the equipment items had been turned in for disposal or transfer (for ordinary reasons) by the using department there would be no easily accessible record of their past presence at NPS or final disposition without this historical file.

III. THE SYSTEM DATA DICTIONARY

A. GENERAL

The previous chapter presented a description of the current Plant Account system and integrated it with the data flow diagrams necessary to present a logical implementation of the system. While the data flow diagrams can convey much useful information about the system, there must be other sections within the Information Description to accurately describe the details of data flow and structure. The designer and user must agree on the accuracy of this information and the documenting of system interfaces with humans and other elements external to the system [Ref. 2].

B. THE DATA DICTIONARY

The term "data dictionary" is accurate but not fully descriptive of the function of this important component of the Information Description. "Project Dictionary" would probably be a more accurate description of its contents, since not only data but the details of system processes should be included. The data dictionary is a convenient listing of all major levels of data, processes, other pertinent details of use to the designer who may not be otherwise familiar with the system.

1. Data Levels

Just as there are different levels of data employed within the system, the Data Dictionary must accurately reflect these levels and allow the designer to note redundancies which can be eliminated and extraneous data which could even be deleted from the system. The lowest level of

data considered is the data element which is a piece of data such as equipment nomenclature, user department, or date of requisition. These data elements are combined to form a data structure such as a DD-1348 or a PRC. In the Plant Account system, many of the data structures are transcribed onto formatted printed documents, but this is not required to define a data structure. In fact, it does not have to be written at all if it is data obtained from an electronic memory for display. An example of this is the accounting information displayed on terminals used by RAO personnel for the unofficial accounting of Reimbursable Funds. Data structures may be in motion as data flows or they may be stationary as data stores. [Ref. 1, pp. 48-49]

2. Data Flow Sources and Destinations

Within any system, data flows between points of its active use and transformation. Within the system, these points are known as processes. It is important in a logical specification that processes be divorced from their physical implementation except for the purpose of understanding the current system structure. By considering processes primarily from the standpoint of their interaction with data flow instead of as functions assigned to a particular office, the designer is free to consider more efficient alternatives as physical implementation of the final system progresses.

Sources or destinations of data external to the system are designated external entities and may be offices, people, catalogs, or any other data sources or destinations. As system analysis proceeds and the scope of the system under consideration changes, it is quite possible for external entities to be brought into the system and for system elements to be designated as external entities.

C. DATA DICTIONARY FORMAT AND STRUCTURE

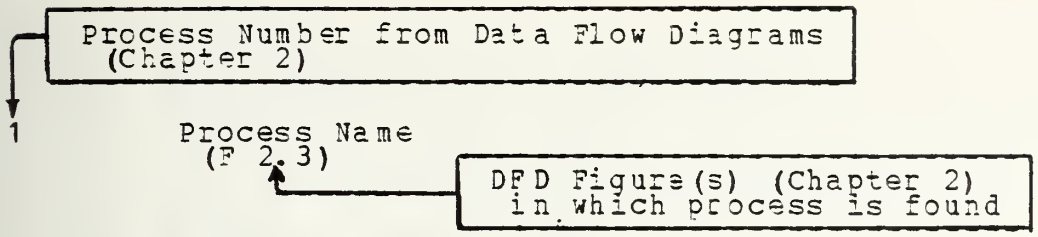
To separate the Data Dictionary sections and improve organization of this paper, the Data Dictionary is contained in Appendices B through F. Each appendix contains a separate section of the Data Dictionary for the NPS Plant Account system. The logical implementations of data and processes are presented without their physical characteristics to the maximum extent possible. It is noted that further analysis will be required on the Data Dictionary contained in this paper to determine the field size and other physical data requirements. The Data Dictionary is intended to be comprehensive in nature. This is required for the the system designer to understand the system even though he may not elect to electronically transfer or process all of the included data structures/elements in the final system design. Each section of the Data Dictionary is briefly described below along with a figure containing the simple key to using that section.

1. Index and Summary Listing (Appendix B)

This section is an index for all data dictionary entries. It identifies the usage of each entry as a data flow, process, etc. A short definition is included for terms not listed in any of the other sections. These are usually terms (or abbreviations) with which the system designer must be familiar to converse with users of the system.

2. Data Processes (Appendix C)

The data processes within the system are listed in the order of the numbers associated with each process in the logical Data Flow Diagram. Associated data flows and a brief description of each are given to enhance understanding



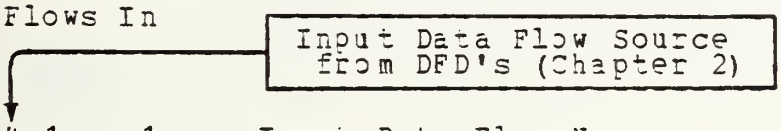
A. Brief description of the process.

B. Process Logic

A more detailed explanation of the process will be placed in this section if required.

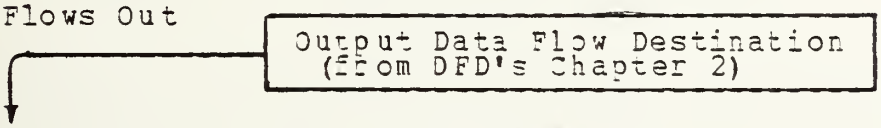
IF a decision must be made in this process, it will be represented by an IF statement such as this one.

C. Flows In



4.1 - 1 Input Data Flow Name

D. Flows Out



1 - 4.1 Output Data Flow Name

E. Remarks

(1) As necessary to relate the Process to the NPS PA system.

Figure 3.1 Data Processes Listing Key.

of actions not implied by the short process title. The key to the Data Process Listings can be found in Figure 3.1.

3. Data Flows (Appendix D)

The listing of data flows is in alphabetical order and includes the contents of the data flow along with its sources and destinations wherever found in the PA system. In the NPS PA system, a number of the data flows are contained in organizational forms. In these cases, the form concerned should be listed in similar format in the Data

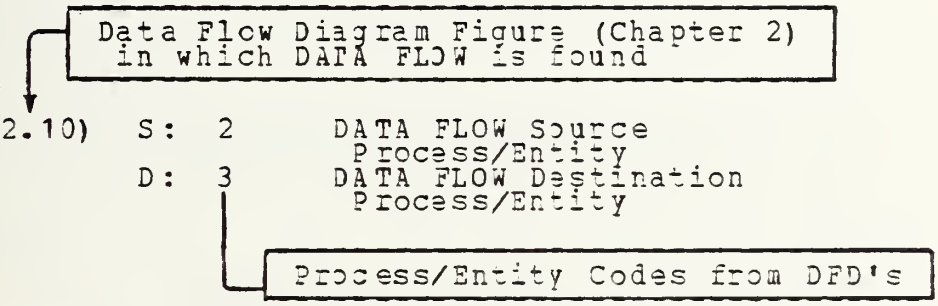
DATA FLOW (Name)

A. Brief description of DATA FLOW.

B. Contents (of DATA FLOW)

(1) Date Structures or Data Elements

C. Reference Descriptions


Data Flow Diagram Figure (Chapter 2) in which DATA FLOW is found
(F 2.10) S: 2 DATA FLOW Source Process/Entity
D: 3 DATA FLOW Destination Process/Entity
Process/Entity Codes from DFD's

D. Remarks

(1) As necessary to relate DATA FLOW to the NPS PA system.

Figure 3.2 Data Flows Listing Key.

Structures section of the Data Dictionary. The reader should be directed to that listing to avoid unnecessary redundancy. Other data flows have been given a title by the analyst to avoid complicating the logical Data Flow Diagrams presented in an earlier chapter. The key to understanding the Data Flows section entries is presented in Figure 3.2.

4. Data Stores (Appendix E)

The listing of data stores is in the numerical order of the identification number assigned to each data store in the Data Flow Diagrams presented in Chapter 2. A brief definition of the purpose of each data store is accompanied by its contents and an analysis of data flows in and out of the store. Figure 3.3 contains the key to the entries listed in Appendix E. It is noted that in the NPS PA system, there are separate data stores which can logically be combined. These were left separate in the Data Flow Diagrams to enhance system understanding. Also, it is

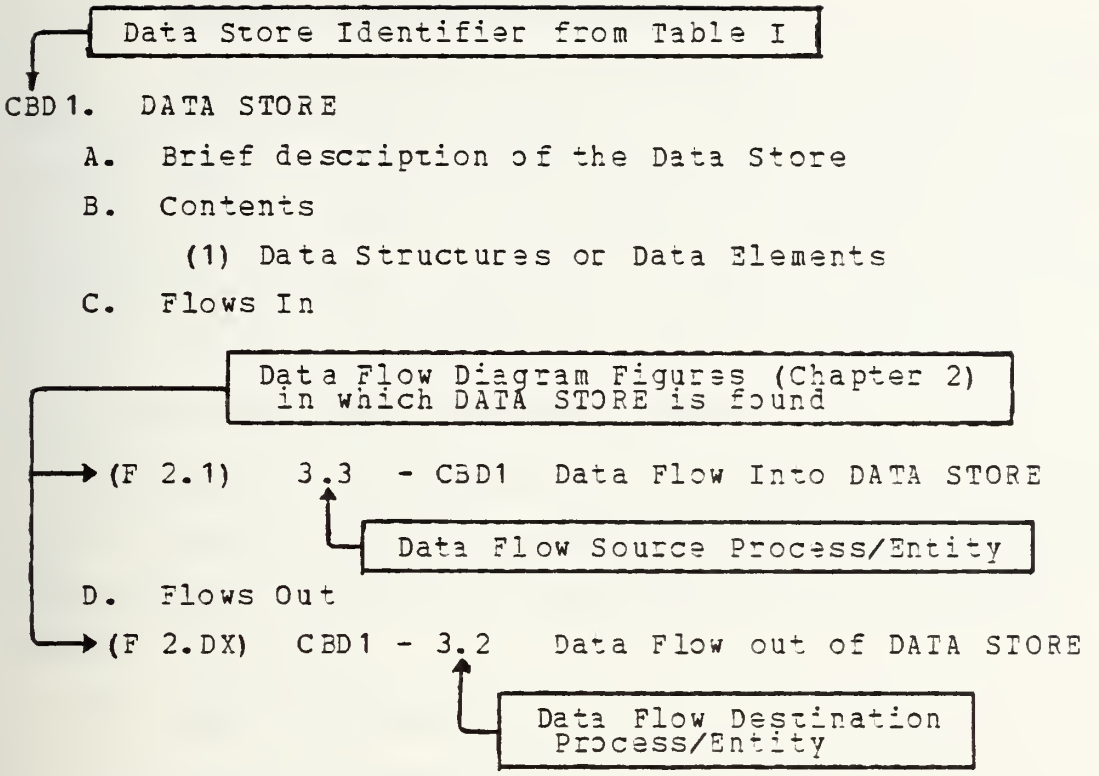

Data Store Identifier from Table I
CBD 1. DATA STORE
A. Brief description of the Data Store
B. Contents
(1) Data Structures or Data Elements
C. Flows In
Data Flow Diagram Figures (Chapter 2) in which DATA STORE is found
(F 2.1) 3.3 - CBD1 Data Flow Into DATA STORE
Data Flow Source Process/Entity
D. Flows Out
(F 2.DX) CBD1 - 3.2 Data Flow out of DATA STORE
Data Flow Destination Process/Entity
E. Remarks
(1) As necessary to relate DATA STORE to the NPS PA system.

Figure 3.3 Data Stores Listing Key.

recognized that in the overlap in the Plant Account system and supply transaction management system described in this paper, there are data stores which may be external entities in the final system implementation. A final factor illustrated in the Data Stores section which may impact system implementation is the present requirement for many transactions and historical files using paper documents. Until these requirements are eased, they will inhibit implementation of a system which could be heavily dependent on electronic information storage. One physical implemenation to support these requirements would be an attached data transcription capability which would electronically output data in the format required on the data forms.

5. External Entities (Appendix F)

Although usually not included, in a large system with numerous External Entities, it may be helpful to include them in a Data Dictionary using a format similar to the Data Stores format illustrated in Figure 3.3 above. Appendix F contains a listing of External Entities in that format. It can be expanded if considered necessary.

D. ADDITIONAL DATA DICTIONARY SECTIONS

Because of the time limit on the extent of this project, not all possible Data Dictionary sections were constructed. Two sections necessary to complete the Data Dictionary remain to be done.

1. Data Structures

The Data Structures section is a vital part of the Data Dictionary. Following the top-down analysis pattern, it should list the data structures composing the data flows and data stores in a system following completion of these sections. Some of these data structures are formalized as written forms containing data elements, while some may be collections of data elements for which the analyst has fabricated his own data structure name.

a. Fabrication of Data Structure Names

Name fabrications for data structures have been done by the author in the data flow diagrams to enhance system understanding. A simple example is the terms describing the progress of an Item Request to a Released NSS Requisition or Purchase Order. Users do not refer to an "Item Request" or "Released NSS Requisition"; "Requisition" is the term used for both and the steps in between. A statement must follow the term "Requisition" to clarify

where the data is currently located the data transformation process included in the procuring system at NPS. This generality is confusing and the verbosity involved in location description unnecessary for one attempting to understand and present data transactions in a concise manner. For that reason, the author has applied some descriptive terms to various data structures where suitable terms are nonexistent.

This practice can simplify understanding of data flow but does require an awareness of the structure contents. When talking with users, the analyst must ensure they understand which data elements are included in a data structure assigned a name the analyst fabricated.

2. Data Elements

The other vital section of the system Data Dictionary not completed in this project is the Data Elements list. This section is at the bottom of the data construction hierarchy; all other data aggregations utilize data elements as their basic building blocks. All data elements are listed alphabetically along with a brief definition. Although obvious in many cases, written definitions ensure a uniform understanding of the term when used by users and system design personnel. The listing should include all data structures in which each data element is found.

IV. CURRENT PLANT ACCOUNT SYSTEM PROBLEMS

A. GENERAL

The last chapter described the Plant Account system as currently implemented in the execution of the various major data transactions. This chapter will describe some of the problems with the current system. The material in this chapter is not included in a system specification, but it is included in this work to point out some shortcomings a new system may be able to eliminate. It should be noted that the solutions to all of these problems do not necessarily require modification of the present Plant Account system. Some are considered to be resolvable within a single department by ensuring that the procedures mandated by the present system are followed. However, it is the intention of this chapter to present all problems perceived by the author in his system analysis and those brought to his attention during interviews with system user personnel. Instead of being categorized by transaction, the problems perceived with the system are addressed from the perspective of each of the major users of the PA system.

B. USER DEPARTMENT

1. Internal Problems

Because departments usually have a central point for the accounting of OPTAR funds, there are very rarely problems with the ordering of equipment on the intradepartmental level. The primary problems encountered within a department occur upon and after receipt of PA equipment. Problems are caused by equipment users who do not report equipment

receipt or take any action to "plant account" it. There appears to be a lack of comprehension of the necessity to support an administrative procedure providing no tangible benefits for these users in the academic environment here. Consequently, the necessary assignment of a PA number and forwarding of necessary documentation to the PA clerk does not occur. This "unknown equipment" is usually discovered either during the comprehensive triennial inventory or following an inquiry from the PA clerk. This problem typically occurs in departments which do not have an individual assigned with responsibility for the Plant Account equipment (besides the period immediately prior to the triennial inventory). Even in departments with an assigned individual, if that individual does not have access to information on new equipment arrivals in his department, his value is greatly diminished. [Ref. 14]

An example of this failure to promptly complete Plant Account administrative procedures on new equipment was the flood of information the PA clerk received from one department on over 150 items of equipment in September 1982 during the triennial inventory. Although most of the equipment was received in December 1980 or earlier, only the triennial inventory was impetus enough to get administrative requirements which should have been done earlier completed. [Ref. 17]

2. External Problems

As might be expected, departments generally experience more problems in their external interface with other users of the PA system. Keeping track of equipment requisition status is often frustrating for departments. The Supply Department uses PO numbers to keep track of equipment requisitions from vendors and sends copies of Purchase Orders to the user department for information. Departments

do not always receive copies of the purchase orders; when calling Supply for a status check they are expected to use a PO number obtained from a document which may have not been received. In a number of cases departments have not received a copy of the DD-1155 for an ordered equipment item until after the equipment has arrived. Using an original DD-1348 stub number requires more time for cross-checking and obtaining of status, but it is often the only data available to identify the item on which status is desired. From the user department's perspective, the Supply Department requirement for memorandum status requests mentioned earlier is considered to be an unnecessarily time-consuming process. [Ref. 13, 14]

C. RESEARCH ADMINISTRATION OFFICE

For the most part, the RAO does not experience any major problems with the current Plant Account system. The only problem of note is the tendency of the RAO not to receive PO amendments from Supply or a price-corrected DD-1348 when the equipment requisitioned has been received. Supply does not forward corrected DD-1348's to RAO, but Reimbursable Funds are very rarely used to purchase expensive equipment through the Navy supply system. Ultimate users who receive a copy of a DD-1348 with the corrected price are depended upon to forward it to the RAO. This prevents an accurate debit of the RAO records which professors depend on to keep track of their research funds. This lack of precise obligation data requires the RAO to maintain its customary 10% fund allowance for equipment price increases longer than necessary, which in some cases may result in unused funds at the end of the fiscal year which could have otherwise been obligated. [Ref. 15]

D. SUPPLY DEPARTMENT

1. Receipt Control Division and Purchasing Branch

One problem experienced by these offices is the above mentioned tendency for departments to call requesting a status on their requisition and not have the PO number. This makes it a time-consuming process to locate the correct requisition because the outstanding PO's are maintained by the individual buyers in a folder and no other cross reference information (such as to nomenclature or stub number) is kept. There is an average of 150 PO's outstanding at any one time with the total increasing to almost 2000 during the final month of the fiscal year, further complicating the status problem.

Until recently, the problem was exacerbated by the lack of a buyer supervisor to help minimize the confusion by maintaining a master listing of outstanding requistions and the assigned buyer. Until the arrival of a supervisor in September 1982, the procedure used was to poll each buyer in the hope that one would remember preparing the Purchase Order for the equipment concerned and be able to respond to the status inquiry. The presence of the buyer supervisor should reduce the time required to locate the status information. The advantages of central control of data parallel those discussed above for a user department. [Ref. 18, 23]

2. Receiving Division

The only problem experienced by the Supply Receiving Division is the occasional inability to locate the correct DD-1348 or DD-1155 for equipment which arrives at the Receiving warehouse. This requires a phone call to the Receipt Control Division to get the destination information on a particular requisitioned equipment item. The identical problem with locating the correct requisition exists if

Receiving does not have the PO number or requisition information from the finalized DD-1155 or DD-1348, although these numbers are usually available in the documents accompanying the incoming item of equipment. [Ref. 24]

E. COMPTROLLER DEPARTMENT

1. Budgeting and Accounting Section

There are no problems perceived with the present PA System in the Budgeting and Accounting Division of the Comptroller Department where accounting of all expended funds is done. [Ref. 16]

2. Plant Account Clerk

As might be expected, most of the problems with the current system are experienced by the Plant Account clerk. Her sole responsibility is accounting for NPS Plant Account equipment. The clerk is able to detect problems which exist not only within the purview of her office, but those which exist in the areas within the cognizance of other users of the Plant Account system. This is true even though in many cases those individuals in the other user organizations may not recognize the problems as they exist in their organization or the problems' effects on other system users.

a. Inadequate Feedback on Requisitions

The PA clerk is supposed to receive a copy of all original DD-1348's as they pass through the Comptroller Department. Additionally, she should receive a copy of either the completed DD-1348 (in the case of requisitions through the Navy supply system) or the DD-1155 (when an outside purchase is made) after final Supply Department action has been taken. When this item of data is not received by the PA clerk for use in the requisition suspense

file, she may be unable to ensure the equipment will be entered into the Plant Account listing once it arrives at NPS. The "may be unable" in this case refers to the fact that the PA clerk should receive redundant feedback on the receipt of all PA-elgible equipment at NPS as noted below.

b. Inadequate Feedback on Receipts

The same unreliability exists with delivery of signed receipts for equipment items received by the User Department to the Plant Account clerk. These documents are even more important than the DD-1348 or DD-1155 cited above as suspense copies because they indicate actual equipment receipt. The PA clerk uses them to initiate an inquiry to the receiving department in a reasonable length of time after receipt if the required documentation on potential Plant Account equipment is not forthcoming. If the receipt documentation is not received by the PA clerk it is virtually certain she will never detect the failure of a department to "plant account" new equipment.

As an example of the effect of this failure, during the current triennial inventory, over 100 items were reported by departments as Gains By Inventory (GBI) in addition to the items in the department cited above. Some of these PA elgible items have been at NPS since before the last PA inventory in 1979 without being entered into the Plant Account. [Ref. 17]

c. Duplicate Information in Multiple Files

Despite the time required, the PA clerk has continued to maintain four files in order to be able to locate any individual equipment item using more than one key, i.e., by name, NID number, department, etc. Each of the four files she maintains on active PA equipment contains information duplicated in the other three files.

The maintenance of these multiple files does enable location of equipment based on different keys. However, it also results in time wasted by the PA clerk in making entries and deletions of the same information in different files.

F. SYSTEMWIDE

1. Duplicate PA Data Employment

a. Duplicate Data Transcription

This problem extends across PA system user boundaries. For example, equipment data and specifications are entered by the originating user on the DD-1348 and SF-36 after the data is located in a technical manual or sales catalog. This data is also used by the Supply Department Purchasing Branch and entered on the DD-1155 used to contract for purchase of the equipment. After the equipment is received, the user department must again enter that data along with some other technical information on the hand-written copy of the Property Record Card. This is forwarded to the PA clerk, who types up the smooth PRC and returns a copy to the department. Data on the PRC is also entered by the using department in their PA equipment listing, whether maintained in a computer file or logbook.

Since an individual PRC and four copies are required for each PA equipment item, it is presently necessary for the PA clerk to type these. This is done even though in some cases there may be multiple copies of the same equipment item at NPS; on the PRC's, only the requisition and serial numbers will vary. This is a time-consuming manual task for the PA clerk.

b. Duplicate Data Files

As an example of file data duplication, it can be observed from the logical data flow diagram that among the major users there are a total of eight separate item requisition suspense files. Each holds documents with duplicate data on them concerning outstanding requisitions.

Duplicate transcribing is necessary during the transfer of PA equipment. The PA clerk forwards her copy of the PRC for equipment to be turned in to the user department for entry of current condition codes. When this PRC is returned to the PA Clerk, she types out another PRC with the information from the original PRC plus the user-entered condition codes to accompany the equipment and to use for copies to forward to NSC Oakland. This additional manual preparation of a PRC is a waste of time.

c. Redundant Data Flows

To ensure the ability of the PA clerk to keep tabs on Plant Account elgible equipment, there is a present support system of redundant routing. For each individual equiment requisition, the PA clerk should receive of a copy of the DD-1348 it initially passes through the Comptroller Department for approval, a copy of the Purchase Order or DD-1348 requisition document which leaves NPS, and a copy of the document indicating equipment receipt. Routing of the equipment receipt along will suffice, but due to the inconsistent reception of this data the additional routings have been established. This has required extra work and copying of documents to meet these requirements, and as noted above, these additional routings have been as inconsistant as in total as the original routing, which results in no improvement in the monitoring situation for the PA Clerk.

2. User Apathy/Responsibility Assignments

It is to be expected that the Comptroller Department, among all PA system users, would be most interested in maintaining accurate Plant Account records and ensuring the system functioned effectively. Accountability for the Plant Account is placed upon the Comptroller by the directives of higher authority. In discussions with users, it was evident (and expected) that the degree of concern for the accuracy of the Plant Account varied but was definately below that observed within the Comptroller Department. The potential for decreased accuracy of PA records and frustration of the PA clerk is obvious. Potential for a greater problem exists in departments which have not established responsibility or accountability for PA equipment data transactions with any individual as discussed above. Even in the Supply and Comptroller Departments, despite good intentions, there are often failures to properly route required data to the PA Clerk. This results in her periodically checking the Supply equipment receipt file for PA-elgible items and finding her first indication of their arrival there [Ref. 17].

3. Manual Maintenance of Data

Many of the problems with the current system are caused by the fact that while it is designed to account for over twenty five hundred individual equipment items, it has a minimal degree of data automation to assist the system users. The equipment inventory program initiated by the Dean of Research and maintained on the resident NPS IBM 3033AP computer is a usable program but optional for use by academic departments. It was initially implemented three years ago and updated to match the PA clerk's equipment files two years ago but is acknowledged to be accurate now

only for the equipment of departments which have diligently updated it [Ref. 15]. The problems of multiple file maintenance and processing of duplicate information mentioned above are a direct result of the manual data maintenance methods necessary to administer the system. In addition, the all communication of documents among the various users is done by guard mail. While having a high level of reliability, guard mail certainly has a lower reliability than electronic data communication. This manual mode of communication also requires documents to be handled in offices where they may be misplaced. Personnel unfamiliar with the system may not know where to route them. This is evidently a factor causing the present system not to function as designed. For example, the PA clerk states she is not consistently receiving required documents from the Supply Department or the Budgeting and Accounting Division of her own department [Ref. 17]. However, personnel responsible for routing those documents state they are routinely routed to the PA clerk [Ref. 16, 25, 26].

The combination of manual maintenance and user apathy makes it very difficult to effectively implement changes to the system which are mandated by higher authority. For example, in the past, the minimum purchase value for PA equipment was $300; later the minimum unit value was changed to $1000, requiring items of less value to be deleted from the Plant Account and the PA identification stickers removed. Although the PA clerk updated her records using the manual procedures noted above, all user departments did not complete the task and numerous equipment items no longer in the NPS Plant Account retain a NID sticker which will confuse personnel charged with future custody and inventory actions. A comprehensive listing of the equipment involved with its locations may have been of use in avoiding this problem.

V. SOFTWARE REQUIREMENTS SPECIFICATION: FUNCTIONAL DESCRIPTION

A. GENERAL

In an earlier chapter, an information description of the required software system was presented using the presently installed Plant Account system as its basis. The purpose of this chapter is to introduce the functional description of a system implemented by a software/hardware interface with system users. The functional description below is not predicated on duplicating the present system. It is one which will meet the Plant Account system requirements of each PA system user while eliminating redundant or unnecessary parts of the present system. It is intended that the system designer find this functional description usable for system design without further analysis of system requirements as the design effort progresses.

B. FUNCTIONS

1. Introduction

The functions below are the specific data transactions the software must implement to achieve the objectives of the Plant Account system. No physical implementation is mandated nor is it implied by the structuring of the functions. In the case of those presented below, however, a basic assumption has been made that all data will be read into and retrieved from a central comprehensive database. Selected data fields from logical files will be accessible to different functions employed by users. The logical files envisioned are formed by pointers used by a

database management system (DBMS) to locate and retrieve the necessary data. This enables the logical file system to be implemented without having to duplicate data in physical files. The reader should keep in mind that all files mentioned in this section are considered to be logical files. It is acknowledged that the system designer may desire not to use the central database concept, and in fact he has that freedom without altering the proposed functions themselves.

2. Data Entry

The system must support entry of data on potential and current PA equipment by those users most familiar with that data. This requires a variety of data entry functions.

a. User Equipment Data Entry

This function accepts equipment data researched and assembled by the ultimate user for the requisition documents along with the requisition number of the equipment request. The data would usually be entered by the user after department approval is obtained. Once entered, it would be placed in one of two files: Validated Item Requests (for Reimbursable Fund requisitions), or Requisitions.

b. RAO Approval Entry

This function allows the RAO to review all data relevant to RAO approval action on requisitions in the RF Validated Item Requests file. Erroneous accounting data would be corrected and an approval code keyed to the approving RAO individual for each approved RF equipment request would be entered. Upon introduction of the approval code, all data associated with the Validated Item Request file would be transferred into the Requisition file.

c. Comptroller Approval Entry

This function allows the Budgeting and Accounting Division of the Comptroller Department to review all data relevant to Comptroller requisition approval on individual requisitions. Those requisitions will be associated with requisition numbers from the Requisitions file. Correction of erroneous user-entered accounting data would be permitted. Following approval action, entry of an approval code keyed to the Budgeting and Accounting individual approving each expenditure request would transfer all data associated with the requisition number into the Approved Requisition file.

d. Requisition Review/Entry

This function makes all data necessary for Supply Department requisition preparation associated with requisitions in the Approved Requisition file available for review. It would be used by Issue Control to conduct validation of all commercial requisitions in ensuring equipment unavailability in the Navy supply system. Following verification, a coded entry signifying Issue Control review completion would be entered which would automatically transfer all data associated with a particular requisition number to the Commercial Requisition file. If an NSS requisition was to be made for the particular equipment item, data pertinent to the requisition would be added to the data field associated with that requisition number. Examples of this data are the date the requisition left NPS and the estimated equipment delivery date. Invoking of the Price Revision function detailed below would be possible from this function to update NSS price information if necessary. Following these entries, a completion code identifying the Issue Control individual making the entries would be entered

which would transfer all data associated with that requisition number to the Requisition Pending file.

e. Commercial Requisition Review/Entry

This function would allow buyers in the Purchasing Branch of the Supply Department to review all data necessary for commercial requisition preparation associated with requisition numbers in the Commercial Requisition file. This function would also allow addition of a revised price using the Price Revision function mentioned below. Additionally, requisition information such as the selected vendor, date the requisition was actually forwarded from NPS for action, and estimated delivery date could be added to the data field associated with that requisition number.

Upon completion of the Purchase Order and entry of initial commercial requisition information, entry of a completion code identifying the individual buyer would automatically transfer all data associated with that requisition number to the Requisitions Pending file.

f. Price Revision Entry

This function would allow the Supply Department to enter the price changes for any equipment item encountered during the Supply Department review and requistion process for both commercial and NSS purchases. Utilization of this function would require entry of the revised price and an entry code identifying the individual entering the revision. It would automatically send key requisition data such as the requisition number, user department, equipment nomenclature, the old and new prices, date of latest price entry, and accounting data to a Price Revision file.

g. Requisition Status Entry

This file would permit Supply Department personnel to enter the latest requisition status information on both outstanding commercial and NSS requisitions.

h. Equipment Receipt Entry

This function will be used by the Supply Department Receiving Division once equipment is received to indicate date of receipt by the NPS user department. A change can be indicated if the equipment is delivered to a location other than that indicated on the original requisition. Once the receipt data is entered, all data on the equipment requisition are automatically transferred into the Equipment Received file.

i. PA/PRC Data Entry

This function would be used by user department personnel conducting plant accounting of received equipment to enter equipment serial number, equipment location, and any other user department entry information into data fields associated with requisition numbers in the Equipment Received file. Entry of a completion code identifying the entering user would automatically transfer all data on the received equipment into the Plant Account Acceptance File.

j. PA/PRC Data Display/Entry

Used by the Plant Account clerk, this function would display pertinent data on equipment in the PA Acceptance file for her review and acceptance for transmittal onto a PRC. Once approved, the PRC Generation function mentioned below could be used by the PA clerk to print out a PRC. If the data was insufficient, all data associated with a particular equipment item could be

returned to the Equipment Received file for further user department data entry. Entry of an acceptance code would automatically transfer all pertinent equipment data into the NPS Plant Account Equipment file.

k. Equipment Inventory Data Review/Entry

This function is used by the user department to update certain responsibility data items for equipment under its cognizance such as equipment location and department responsible in the event of changes.

l. Equipment Calibration Data Entry

This function will be used by user departments to enter and update calibration data on equipment which has either been recently calibrated or whose calibration interval was changed.

m. Equipment Disposition Data Entry

This function will allow entry of the destination command for equipment transferred from the NPS Plant Account, the date of transfer, and document number. Upon entry of a completion code, all equipment data will be transferred out of the NPS PA Equipment file and into the Disposition Pending file.

n. Disposition Complete Entry

Upon receipt of a signed receipt document from the receiving command, entry of the date of receipt and a completion code will automatically transfer all data on an equipment item in the Disposition Pending file into the PA Equipment Historical file.

3. Data Retrieval/Display

One of the greatest assets of an MIS is its ability to quickly retrieve data needed by users to carry out their responsibilities. This can be done in a timely manner without inconveniencing data providers after initial data entry into the MIS.

a. Price Revision Display/Receipt Entry

This function would be used by the Comptroller, RAO, and user department to identify price revisions on equipment items within their purview. This would facilitate the accuracy and currency of the information in these users' accounting records. Upon completion of the accounting action, entry of a personal identification code would indicate receipt of the price change information. The same equipment item could be prevented from being displayed to the same user (Comptroller, RAO, or user department) unless another price change occurred subsequent to the one just entered in the user accounting records.

b. Delivery Data Display

This function displays data used by the Supply Department Receiving Division to locate the user department delivery contact individual and deliver the equipment to the right location once the equipment has arrived at NPS.

c. Requisition Status Review

This function would be used by user departments to review the latest status of pending equipment requisitions. It would present the minimum data necessary to identify the equipment item, its current status in the delivery process, and the status date.

d. Calibration Data Review

This function would be used by equipment users to provide a display of equipment due for calibration in the upcoming specified time interval. Data displayed would be the minimum necessary for the user department to locate and calibrate the equipment.

4. Data Printouts

Printouts of PA equipment data will be of use to users for data with more than transitory significance.

a. PA Equipment Listing Generator

A listing of PA equipment information of use to the PA clerk and user departments. It should be available using different retrieval and sort keys such as nomenclature, NID, custody department, location, and date of entry into the Plant Account.

b. PRC Generation

This printout would be used by the PA Clerk and eliminate the manual typing of the original PRC and four copies presently necessary for each item of PA equipment. User departments would use it for the same purpose. This function would only be of use if automated PRC's are permitted. There is no known written authorization to that effect at the present time.

c. Status Listing Generator

This listing would provide information on equipment requisitioned but not received and status of the requisitions to requesting system users (primarily user departments and the Supply Department).

d. Calibration Listing Generator

This listing could be output on a periodic basis to identify equipment requiring upcoming calibration. It should be noted that the MEASURE program initiated by the U.S. Navy provides an identical listing from an external source to users on their equipment. NPS is not presently utilitizing the MEASURE program but has been directed to do so. This will eliminate the necessity for duplicating this function in a proposed PA system unless a back-up capability is desired.

C. DESIGN CONSTRAINTS

1. Introduction

The following design constraints are applicable to the software system. They are not meant to be restrictive to the system designer. They are meant to reflect the realities of good software design and specific requirements imposed upon the system by users to increase its effectiveness. Additionally, they can be viewed as guidelines to ensure the system is not only responsive to the present users' needs, but also maintainable to a maximum degree to accomodate software changes implemented in response to future system procedural changes.

2. Software Design Constraints

These design constraints are general in nature and supportive of effective software design.

a. Modularity, Information Hiding, Uses Hierarchy

For ease of construction of the total software to implement the MIS, the software design should be highly modular. In the case of the Plant Account MIS, this is even

more important given the multiplicity of functions operating on a centrally located database. It is frankly envisioned that the system designer would not want to design a database manager to accomplish the database management functions, but rather consider a database management system (DBMS) to accomplish transactions of data with the database itself. This would require modular functions which would maintain a common interface with the database management system, which in turn would construct the logical files for display as necessary. How this would be accomplished and the physical file structures would be hidden from higher level modules which would use lower level modules. This modularity, information hiding, and employment of a uses hierarchy mutually support each other. Use of these three software design principles in tandem would minimize module interfaces with each other and simplify the modification of functions and modules.

b. Structured Design

Another principle of software design which should be incorporated from initiation of software construction is structured design. Its primary advantages are again to the maintainer of the software, but the programmer and documenter of the software will also benefit from diligent application of this technique.

c. IBM Hardware Compatibility

As mentioned above, selection of hardware on which to implement the system is not perceived to be a difficult problem. At the present time, all four of the major user groups have access in their immediate area through terminals to the IBM 3033AP mainframe computer at NPS. Although formal approval of the proposal to implement the system on the 3033AP would have to precede the design

effort, it is considered highly probable given the current support of the Dean of Research for the system concept and implementation [Ref. 3].

3. User Imposed Design Constraints

These constraints are desirable to the system users for system acceptability and usability.

a. System Security Considerations

Although the Plant Account MIS does deal with financial transactions, it has no direct funds transfer ability. Therefore, it requires only a low level of system access protection. Within this access protection, there should be higher levels of protection for certain functions with the capability to alter the database contents. A concern expressed by the Assistant Comptroller was allowing the database on-line accessibility to users who might alter its contents maliciously. For example, an individual pilfering an equipment item and removing it from the PA Equipment file to cover the theft [Ref. 5]. While total protection is probably impossible, it is reasonable to vest equipment addition and deletion authority as well as overall control of the system with the Comptroller since his department maintains final accountability for the Plant Account. The system should be designed to reasonably restrict other users' access to the minimum functions and data fields necessary.

Another concern is the possibility of having the files destroyed. To deal with this issue, maintenance of a master file using a periodic tape entry of transactions and backup will ensure survivability of the PA inventory. Additionally, a periodic printout for the PA clerk provides an additional backup. However the issue is addressed, the Comptroller's requirements must be met to recive his endorsement of the system.

b. Audit Trail

Related to internal security of the system, maintenance of an internal audit trail will provide a record of system users and data transactions to assist in identifying any misuse of the system. This record could be recorded and retained for a certain period of time either on tape or in written form for periodic inspection and use as necessary.

c. Ease of System Operation

Among the users of the system, there is a fairly even balance of experienced and inexperienced computer users. For example, user department transactions could conceivably be assigned to student aids often employed at NPS. Additionally, while most personnel in academic departments and in the RAO are well acquainted with computer usage procedures, office personnel in the Comptroller and Supply Departments have only recently been introduced to any on-line interaction with a computer. For this reason, the Plant Account MIS should be designed for users with a low to intermediate level of computer knowledge.

In addressing this issue, it has already been noted that the current Plant Account system would be much more effective if it were followed by its users. Designing a computer-based MIS does not guarantee that users will effectively use it, but the probability of its use is greatly increased if the system is not intimidating to the average user.

To reduce user anxiety and system entry errors, system users should have the option of reviewing their inputs for each equipment item for which entries are made before committing those inputs to the database and availability to other users' transactions.

Given the scope of items included in the Plant Property Account, it would not be practical to utilize an on-line table of data on all possible purchases. However, each department could build its own table for probable purchase items or utilize the current PA inventory equipment data for on-line error checking purposes. Data of interest could include nomenclature, manufacturer, model number, and other equipment specifications as well as possible vendors for potential commercial purchases. An item description with National Stock Number would suffice for items available through the Navy Supply System.

d. Variable Sort and Retrieval Keys

Although alluded to above, it is worth reiterating that the system should support utilization of a variety of data sorting and retrieval keys. These include but are not limited to user department, equipment nomenclature, equipment location, and equipment manufacturer (for possible safety recalls).

e. Off-Line Historical File

In the interest of efficient hardware utilization, the complete historical file should be maintained off-line. Entries to the historical file could be made in a small on-line historical file whose contents would be periodically entered onto the historical file tape.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

1. Plant Account Effectiveness Improvement

From this study of the Plant Account system at the Naval Postgraduate School, it is evident that a significant number of problems encountered with the present system can be solved by implementation of a Management Information System. The three primary benefits of an Plant Account equipment MIS are assistance of users in handling plant account equipment data, avoiding redundancy in data communication with other system users, and reducing the probability of errors through misplacing of documents requiring physical delivery from one office to another. Carrying the idea of data handling and transcription redundancy one step further, installing an MIS with formatted document printing capability would yield even higher system operation efficiency. However, satisfactory results with a simple data-handling MIS are considered a prerequisite to consideration of this feature.

2. User Benefits Would Encourage MIS Utilization

It is acknowledged that no system, no matter how efficient, will be effective if it is not employed by its users. There is the possibility that an improved MIS would not be used any more effectively than the present manual system. However, it is felt that the probability of this non-usage will decrease as the users realize the benefits of the system. During the author's interviews, every user acknowledged the shortcomings of the present system and a willingness to participate in using a system which would

deal with some of the major problems delineated in earlier chapters [Ref. 24, 5]. Of course, it would be the responsibility of the authority in each system user department to support and require use of the system once it had been proven effective.

a. User Departments

For user departments, these benefits include one-time entry of equipment information vice multiple transcription of the same information for requisition and plant accounting purposes, and immediate requisition status availability vice the requirement for a written request to be forwarded to the Supply Department. User departments presently using the equipment inventory program made available by the Dean of Research would continue to have a ready inventory of their equipment available. This capability would be gained by other user departments by utilization of the MIS in initially recording requisition information and then having minimal entries to complete entry of equipment into the inventory.

b. RAO and Comptroller Department Accounting

For the RAO and Comptroller Department accounting, instant availability of both original and corrected accounting data should improve funds accounting records' accuracy.

c. Supply Department

The Supply Department will be able to easily enter requisition status on a periodic basis and locate requisition information quickly using logical file methods without dependence on manual file systems or physical transmission of multiple documents to Supply divisions. For example, the Receiving Division can quickly determine the

destination of any equipment using a modem and terminal or a periodic single printout provided by Receipt Control without having to utilize individual document copies requiring maintenance of a separate physical file.

d. Plant Account Clerk

The Plant Account clerk will be the largest individual beneficiary of a Plant Account MIS. She will be able to easily monitor the status of a Plant Account equipment item from initiation of thr requisition to installation of the item in the NPS Plant Account equipment inventory. An MIS will reduce the four separate physical files she maintains to one (Property Record Cards) and greatly simplify entry of equipment items into the Plant Account. The data transactions which she currently maintains using manual methods can be accomplished by utilization of the Plant Account MIS to logically transfer equipment items into the proper category file. A historical file maintained on tape will eliminate the multiple files of 5 x 8 inch cards for all future historical entries.

3. Hardware for MIS Available

A Plant Account MIS installed on the resident IBM 3033AP mainframe would allow all major users convenient access to the system. User Departments and the RAO already have direct access to the mainframe from hardwired terminals, the Supply and Comptroller Departments have modem and miniterminal capability in their respective offices.

4. Software Development Talent Available

It is possible that a decision to procede with development of a Plant Account MIS would lead to a contract for system development or purchase of a system. However, the continuation of the implementation project initiated by

this thesis is considered to be a valid student project in software design and system development. It is recognized that maintenance of the software system would have to be conducted by programmers paid from the NPS budget, and the designation of funds for that effort must be addressed. This shifting of responsibility from system designers to maintainers emphasizes the need for understandable documentation to accompany the delivered software implementing the PA MIS.

5. Extensions of a Plant Account MIS Feasible

In this study of the NPS Plant Account equipment management system, user departments other than academic departments were not considered. This is because the bulk of the Plant Account equipment items reside in academic departments. However, there is little reason why an installed system could not be opened for the use of non-academic departments such as Public Works which hold Plant Account equipment. Access to terminals from which to utilize the system is an important factor in this decision.

The Plant Account system is located at the intersection of two major administrative functions which are both excellent candidates for an MIS installation. One of these is the requisitions system used by NPS and the other is the property management system. Experience with the PA MIS would provide an experience base for a supply requisitions MIS should the decision to implement such a system be made in the future. In the area of property management, implementation of a workable Plant Account MIS would make extension to minor property items (those worth less than $1000) fairly easy.

It is worth noting that the Plant Account system already involves a number of major departments at NPS. Installation of a system linking these departments could set

a desirable precedent (or undesirable, depending upon one's outlook). This would provide a working example to counteract the tendency of individual departments to install their own data management systems at the expense of effective communication among the individual systems. At the initiation of this paper, the author found the possibility of three separate systems being utilized in three of the four PA system user departments. The Supply Officer was investigating installation of a PDP-11 minicomputer, the Comptroller was attempting to install a Wang system for his department, and the RAO and academic user departments were utilizing the IBM 3033AP. Diversity is not necessarily wrong, but cost-effectiveness of system and program maintenance as well as compatibility of data flows is enhanced by utilization of a single system usable by multiple departments.

B. RECOMMENDATIONS

1. Proceed with Plant Account MIS Design

It is recommended that efforts continue on the design of a usable Plant Account MIS for realization of the benefits delineated above. This project is considered to be a worthwhile exercise for interested students (author's bias admitted) and NPS would benefit. It is acknowledged that no cost-benefit analysis has been run; the recommendation is predicated upon student effort at this point. A cost-benefit analysis is obviously required prior to a major commitment and expenditure of funds to install a system using professional efforts. Recognizing the current budget realities, continued cooperation with students interested in this project would yield the most cost-effective results for NPS. The Plant Account MIS could be a small scale test of the feasibility of a larger interdepartmental MIS at NPS.

2. Utilize Installed Database Management System

Utilization of an installed database management system (DBMS) on the 3033AP would be the optimum method of interfacing the MIS with the Plant Account equipment information database. The alternative of construction of a DBMS as part of the Plant Account MIS and is not desirable in terms of ease of system software design and maintenance. (Given the database courses available at NPS and the increasing emphasis on databases, an installed system would also have broad application as an instructional aid.)

A final alternative is utilization of a DBMS installed on another computer at NPS (possibily a minicomputer). To effectively implement this possibility, the host computer must be compatible with the IBM 3033AP or offer another means of convenient user access by the system users.

C. RECOMMENDATION BEYOND THESIS SCOPE

1. Duplicate Reimbursable Fund Accounting

During the systems analysis associated with this paper, it was noted that both the RAO and Comptroller Department maintain accounting data on Reimbursable Funds used for academic purposes at NPS. While the RAO utilization of an automated accounting system results in minimal time required to handle transactions, there is a duplication of effort which should be addressed at a higher level. This accounting should be consolidated in one location if at all possible. It is logical to propose that the Comptroller do this accounting, since he is officially responsible for the accounting of the Reimbursable Funds.

One possible solution is development of a Reimbursable Fund accounting procedure by the Comptroller Department using an accounting system based on the resident

IBM 3033AP in an accounting database similar to that one already used by the RAO. Allowing the RAO read-only access to the official NPS reimbursable fund accounting database with functions to allow determination of the current status of any account would appear to meet the needs of both of these major users.

This recommendation and comments are made by a novice systems analyst as one who has not done any detailed investigation of this particular issue and they are offered as observations from that perspective.

D. PROCEEDING ON WITH PLANT ACCOUNT MIS DEVELOPMENT

The author acknowledges that this paper has only been a small beginning for development of a workable and effective Plant Account MIS. Hopefully this effort will be continued by another student who share a similar enthusiasm for system analysis and design challenges. Disregarding the politics of implementing a system and concentrating instead on the design issues, there are a series of ordered steps to be followed from this point, initially to complete the software requirements specification, then to continue on into the design phase.

1. Data Dictionary Completion

The Data Structures and Data Elements sections of the Data Dictionary must be completed. Since the PA system relies heavily on formatted written documents which are included in the Data Flows and Data Stores sections, much of the information necessary for construction of these sections is already available.

2. Data Flow Diagram Refinement

The data flow diagrams included in this paper were modeled after the present system data flows. After being analyzed, it will be noted that there are certain areas of redundancy in data flows, stores, and processes which can be eliminated. This streamlining of the system should then be reflected in amended data flow diagrams which will provide a better basis for system design.

3. Validation Criteria

This section of the Software Requirements Specification is probably the most important but often the most neglected in the enthusiasm of the analysis and design effort [Ref. 2, p. 117]. It contains the written criteria necessary to determine that a designed system will meet user requirements. The validation criteria should be reviewed by the system users with the analysts who compose them. They will be used to validate system functions, performance, and constraints.

4. Preliminary Users' Manual

Approaching the entire software package as a black box, the Preliminary Users' Manual puts the analyst in the position of a system user. It emphasizes system inputs and outputs and when reviewed with the user, will help to keep the system interface with humans free of problems which would hinder system usage. [Ref. 2, p. 118]

5. User Approval and System Design

Once the analyst has received user approval on the complete Software Requirements Specification, the package can be turned over to system designers who will use it as the basis for design of the physical system.

APPENDIX A

ABBREVIATIONS AND ACRONYMS

Acc't	Accounting
ADP	Automated Data Processing
ADPE	Automated Data Processing Equipment
CNET	Chief of Naval Education and Training
Conf	Confirmation
Contrld	Controlled
DBMS	Data Base Management System
DFD	Data Flow Diagram
DPDO	Defense Property Disposal Office
DSE	Dean of Science and Engineering
FY	Fiscal Year
MIS	Management Information System
NPS	Naval Postgraduate School
NSC	Naval Supply Center
NSN	National Stock Number
NSS	Navy supply system
O & MN	Operations and Maintenance, Navy
OPN	Other Procurement, Navy
OPTAR	Operating Target
PA	Plant Account
PO	Purchase Order
POA	Purchase Order Amendment
RAO	Research Administration Office
Req	Request
Reqn	Requisition
RF	Reimbursable Funds
SD	Supply Department
VIR	Validated Item Request
Xfer	Transfer

APPENDIX B

SUMMARY LISTING

Approve/Route Surveys	Process 32
Approved Item Request	Data flow
Approved Requisition	Data flow
Bid Request	Data flow
CALIBRATION ACTIVITY	External entity c
CALIBRATION ADP FACILITY	External entity f
Calibration Completed Data	Data flow
Calibration Due Data	Data flow
Completed Requisition Documents	Data flow
COMPLETED SURVEYS	Data store SD24
CONTROLLED EQUIPMENT DIRECTIVES	External entity d
Create Custody Change Memoranda	Process 23
Create Disposition Requests for Controlled Equipment	Process 29
Create Equipment Surveys (request)	Process 34
Create Equipment Transfer Lists	Process 25
Create Item Requests	Process 1.1
Create Item Requests/Store Accounting Data	Process 1
Create Purchase Orders/PO Amendments	Process 4.2
Create PRC's	Process 15

Create PRC's (rough)	Process 14
Create/Route Transfer DD-1348-1's	Process 31
Custody Change Data	Data flow
Department Document Number	Data flow
DEPARTMENT INVENTORY TEAM	External entity i
Department OPTAR Accounting Data	Data flow
Department OPTAR Record Balance	Data flow
Determine Item NSS Availability	Process 4.1
Disposition Directive	Data flow
Disposition Request	Data flow
DOCUMENT NUMBERS	Data store DD15
Enter Approval Signature Enter user department approval signature on a Verified Item Request for all OPTAR/OPN expenditures.	Process 1.2
Enter Approval Signature Enter signature on behalf of the Dean of Research approving a Validated Item Request (verified) expending Reimbursable Funds.	Process 2.2
Enter Calibration Due Data	Process 21
Enter Corrections in Department Equipment Files	Process 22
Enter Corrections in NPS PA Equipment Files	Process 16
Enter Data Changes on PRC's	Process 24
Enter Document Numbers	Process 1.3
Enter Dean of Research Approval/ Store RF Accounting Data	Process 2
Enter NPS Approval	Process 3.3

Enter NPS Approval/Store Accounting Data	Process 3
Enter/Route Received Item Data	Process 12
EQUIPMENT CALIBRATION RECORDS	Data store DD19
EQUIPMENT CALIBRATION REFERENCE	External entity r
Equipment Calibration Reference Data	Data flow
Equipment Data	Data flow
EQUIPMENT DATA	Data store DD18
Equipment Deletion Entry	Data flow
EQUIPMENT ITEMS	External entity e
Equipment Nameplate Data	Data flow
EQUIPMENT TRANSFER HISTORY	Data store DD21
Equipment Transfer List	Data flow
EQUIPMENT TRANSFER RECEIPTS	Data store SID30
Extract Completed Purchase Orders	Process 36.6
HIGHER AUTHORITY	External entity h
Identify Equipment Requiring Calibration	Process 20
Invalid Item Request	Data flow
Inventory Data	Data flow
Item Bid	Data flow
ITEM INFORMATION SOURCE	External entity s
Item Receipt	Data flow
Item Receipt Documents	Data flow
Item Request	Data flow

Item Specifications	Data flow
Justified Requisition	Data flow
Location	Data flow
NAVY MANAGEMENT DISTRIBUTION LIST	External entity m
NAVY SUPPLY SYSTEM	External entity n
NID Number	Data flow
NID NUMBERS	Data store DD17
NID Number File Data	Data flow
NPS OPTAR Account Balance	Data flow
NPS OPTAR Accounting Data	Data flow
NPS PA Equipment Inventory Results	Data flow
NPS Reimbursable Funds Account Balance	Data flow
NPS Reimbursable Funds Accounting Data	Data flow
NSC OAKLAND	External entity o
OPTAR ACCOUNTS	Data store CBD1
OPTAR RECORDS	Data store DD12
PA EQUIPMENT HISTORY	Data store CPD10
PA Equipment History Card	Data flow
PA EQUIPMENT MASTER	Data store CPD6
PA Equipment Master Data	Data flow
PA EQUIPMENT NID NUMBERS	Data store CPD8
PA EQUIPMENT NOMENCLATURE	Data store CPD9
PA Equipment Nomenclature Card	Data flow

PA EQUIPMENT RECEIPTS	Data store CPD5
PA Equipment Removal Notification	Data flow
PENDING APPROVED PA REQUISITIONS	Data store CPD3
PENDING EQUIPMENT TRANSFER LISTS	Data store SID28
PENDING ITEM REQUISITIONS/REQUESTS	Data store DD13
PENDING PA EQUIPMENT TRANSFER DD-1348-1'S	Data store CPD11
PENDING PURCHASE ORDERS	Data store SPD31
PENDING PURCHASE ORDER REQUISITIONS	Data store SCD23
PENDING RELEASED NSS REQUISITIONS	Data store SID25
PENDING RELEASED PA REQUISITIONS	Data store CPD4
PENDING RELEASED REQUISITIONS	Data store SRD32
PENDING RELEASED REQUISITIONS/ PURCHASE ORDERS	Data store DD14
PENDING TRANSFER DD-1348-1'S	Data store SID29
PLANT ACCOUNTING DIRECTIVES	External entity p
PRC (DD-1342)	Data flow
PRC'S Contains one Property Record Card for each NPS Plant Account equipment item.	Data store CPD7
PRC'S Contains one Property Record Card for each Plant Account equipment item held by a specific user department.	Data store DD16
PRC CODES	Data flow
Price Corrected DD-1348	Data flow
Produce Department PA Equipment Inventory Report	Process 18

Produce Disposition Memoranda for Controlled Equipment	Process 30
Produce NPS PA Equipment Inventory Report	Process 19
Produce/Route External Requisitions	Process 4
Purchase Order/PO Amendment (DD-1155)	Data flow
PURCHASE ORDERS HISTORY	Data store SID27
Purchase Order Number	Data flow
RAO Reimbursable Funds Accounting Data	Data flow
REIMBURSABLE FUNDS ACCOUNTS	Data store CBD2
Reimbursable Funds Account Balance	Data flow
REIMBURSABLE FUNDS RECORDS	Data store RD22
Released NSS Requisition	Data flow
Remove PRC's of Items to be Transferred	Process 28
Requisition	Data flow
Requisition Confirmation Request/Reply	Data flow
REQUISITIONS HISTORY A file of past completed requisitions initiated by s specific user department.	Data store DD20
REQUISITIONS HISTORY A file of completed requisitions on items received by NPS.	Data store SID26
Requisition Number	Data flow
Requisition Suspense Documents	Data flow
Route Completed Requisition Data	Process 36.3
Route Completed Requisition Documents/ NSS Price Changes	Process 36.4
Route Supply Receipt Documents	Process 36.2

Specify Immediate Transfer Equipment	Process 27
Store Accounting Data Enter necessary accounting data from a request or requisition into the department OPTAR RECORDS.	Process 6
Store Accounting Data Enter the necessary accounting data from a request or requisition into the RAO REIMBURSABLE FUND RECORDS.	Process 9
Store Accounting Data Enter necessary accounting data from a request of requisition into NPS OPTAR or REIMBURSABLE FUNDS ACCOUNTS accounting records and forward a copy of potential PA Item Requests to the PA clerk.	Process 10
Store Completed Requisition Documents	Process 36.5
Store Correct Status Data Enter latest department item request/ requisition documents in suspense files and remove earlier documents reflecting outdated status data.	Process 7
Store Correct Status Data Enter latest PA-elgible item request/ requisition documents in suspense files and remove earlier documents reflecting outdated status data.	Process 11
Store Equipment Data	Process 13
Store PRC's	Process 17
Store Requisition Documents	Process 4.4
Store Requisition Documents/ Route Purchase Order Copies	Process 4.5
Store Transfer DD-1348-1's	Process 32
Store/Forward Equipment Transfer Lists	Process 26
Store/Forward Transfer Receipts	Process 33
Store/Route Completed Requisition Data	Process 36
Supply Receipt Documents	Data flow
Survey	Data flow

TRANSFER DESTINATIONS	External entity t
Transfer DD-1348-1	Data flow
Transfer Receipt DD-1348-1	Data flow
Unjustified Requisition	Data flow
User Department	Data flow
User Receipt Documents	Data flow
Validated Item Request	Data flow
VENDORS	External entity v
Verified Item Request	Data flow
Verify Funds Available Verify that the official NPS balance in the account to be debited will support the expenditure.	Process 3.2
Verify Funds Available Verify that Department OPTAR RECORDS indicate funds are available to support an item request.	Process 5
Verify Funds Available Verify the RF account balance in the RAO REIMBURSABLE FUND RECORDS is sufficient to support an item request/requisition.	Process 8
Verify Item Receipt Documents	Process 36.1
Verify Item Requests' Validity	Process 2.1
Verify Price/Route NSS Requisitions	Process 4.3
Verify Requisition Codes	Process 3.1

APPENDIX C

DATA STORES

CBD1 OPTAR ACCOUNTS

A. The official ledger used to account for expenditure of all OPTAR funding at NPS. Maintained on the NPS IBM 3033AP.

B. Contents (of each record entry)

(1) Department LMC
(2) Requisition number
(3) Vendor (commercial purchases)
(4) Amount obligated

C. Flows In

(F 2.7) 10 - CBD1 NPS OPTAR Accounting Data
(F 2.11)
(F 2.14)

D. Flows Out

(F 2.7) CBD1 - 3.2 NPS OPTAR Account Balance

E. Remarks

(1) Subsequent price adjustments are made using a separate line entry using the original requisition number.

CBD2 REIMBURSABLE FUNDS ACCOUNTS

A. The official ledger used to account for expenditure of all Reimbursable Fund monies at NPS. Maintained by Reimbursable Funds Account Number.

B. Contents (of each record entry)

(1) Segment/Job order number
(2) Amount obligated

C. Flows In

(F 2.7) 10 - CBD2 NPS Reimbursable Funds Accounting Data
(F 2.11)
(F 2.14)

D. Flows Out

(F 2.7) CBD2 - 3.2 NPS Reimbursable Funds Account Balance

E. Remarks

(1) The IDA on-line system is used for Reimbursable Fund accounting.

(2) An additional log is kept in a notebook in the Comptroller Department Budgeting and Accounting division to record segment/job order numbers against requisition actions.

CPD3 PENDING APPROVED PA REQUISITIONS

A. A file of approved requisitions. Filed by user department and then in order of requisition Julian date.

B. Contents

(1) Approved requisition DD-1348's

C. Flows In

(F 2.7) 11 - CPD3 Approved Requisitions (PA)

D. Flows Out

(F 2.11) CPD3 - 11 Approved Requisitions (PA)

E. Remarks

(1) Used to remind Plant Account clerk of outstanding Plant Account equipment requisitions for follow up on departmental "plant accounting."

CPD4 PENDING RELEASED PA REQUISITIONS

A. A file of requisitions which have been processed and forwarded by NPS for equipment which has not been received. Filed by user department and then in order of requisition Julian date.

B. Contents

(1) DD-1348 copies (NSS requisitions) or
DD-1155 copies (commercial requisitions)

C. Flows In

(F 2.11)	11	- CPD4	Purchase Orders/PO Amendments (PA)
(F 2.11)	11	- CPD4	NSS Released Requisitions (PA)

D. Flows Out

(F 2.14)	CPD4	- 11	Requisition Suspense Documents (PA)

E. Remarks

(1) Used to remind Plant Account clerk of outstanding Plant Account equipment requisitions for follow up on departmental "plant accounting."

CPD5 PA EQUIPMENT RECEIPTS

A. A file of completed requisitions for Plant Account equipment which has been received by the NPS user but has not been "plant accounted."

B. Contents

(1) DD-1348 Approved Requisitions copies (NSS or commercial requisitions) or
DD-1155 Purchase Order copies (commercial requisitions) with dates of receipt noted

C. Flows In

(F 2.14)	11	- CPD5	Item Receipts (PA)

D. Flows Out

(F 2.15)	CPD5	- 11	Item Receipts (PA)

E. Remarks

(1) Used to remind Plant Account clerk of outstanding Plant Account equipment requisitions for follow up on departmental "plant accounting."

CPD6 PA EQUIPMENT MASTER

A. A listing of all NPS Plant Account equipment. Filed in order of date PRC's were forwarded to NSC Oakland. For PRC's forwarded on the same date, file is in order of equipment NIDs.

B. Contents (for each item record)

(1) Department code
(2) NID number
(3) Nomenclature
(4) Manufacturer
(5) Model number
(6) Manufacturer serial number
(7) Cost
(8) Forwarding Date

C. Flows In

(F 2.15)	16	- CPD6	PA Equipment Master Data
(F 2.18)	16	- CPD6	User Department (Receiving)
(F 2.19) (F 2.24)	16	- CPD6	Equipment Deletion Entries

D. Flows Out

E. Remarks

(1) When item is deleted from this file, a single line is drawn through the line entry with a notation of the date the deletion was reported to NSC Oakland.

CPD7 PRC'S

A. Contains one original PRC for each NPS Plant Account equipment item.

B. Contents

(1) Property Record Cards (DD-1342)

C. Flows In

(F 2.18)	16	- CPD7	Location
(F 2.15)	16	- CPD7	PRC's
(F 2.18)	16	- CPD7	User Department (Receiving)

D. Flows Out

(F 2.19)	CPD7	- 27	Equipment Data (controlled)
(F 2.19)	CPD7	- 28	PRC's
(F 2.22) (F 2.24)	CPD7	- 16	PRC's

E. Remarks

CPD8 PA EQUIPMENT NID NUMBERS

A. A listing of all Plant Account equipment items by department in order of NID number.

B. Contents (of each equipment item record)

(1) NID number
(2) Nomenclature
(3) Manufacturer serial number

C. Flows In

(F 2.15)	16	- CPD8	NID Number File Data
(F 2.18)	16	- CPD8	User Department (Receiving)

D. Flows Out

E. Remarks

CPD9 PA EQUIPMENT NOMENCLATURE

A. Composed of a 5 x 8 inch index card on each individual Plant Account equipment item. Filed in alphabetical order of nomenclature.

B. Contents (of each index card)

(1) Nomenclature
(2) Model number
(3) Manufacturer
(4) Manufacturer serial number
(5) User department
(6) NID number
(7) Commodity number (commercial purchases) or National Stock Number (NSS purchases)
(8) Forwarding Date

C. Flows In

(F 2.15)	16	- CPD9	PA Equipment Nomenclature Cards
(F 2.18)	16	- CPD9	User Department (Receiving)

D. Flows Out

(F 2.19) (F 2.24)	CPD9	- 16	PA Equipment Nomenclature Cards

E. Remarks

(1) This file is not required but was initiated by a previous Plant Account clerk and continued for use in locating equipment by nomenclature.

CPD10 PA EQUIPMENT HISTORY

A. A file of the 5 x 8 inch index cards on individual Plant Account equipment items which have been transferred from the NPS Plant Account to another command (whether for use or disposal). Filed in order of nomenclature.

B. Contents

(1) Same as CDP7. B.
(2) Each card also contains the following information:

(a) Transfer destination
(b) DD-1348-1 serial number
(c) Date of shipment
(d) Forwarding date

C. Flows In

(F 2.22) (F 2.24) 16 - CPD10 PA Equipment History Cards

D. Flows Out

E. Remarks

(1) This file is not required but was initiated by a previous Plant Account clerk and continued for use in locating equipment previously held in the NPS Plant Account by nomenclature.

CPD11 PENDING PA EQUIPMENT TRANSFER DD-1348-1'S

A. Identifies Plant Account equipment which has removed from NPS but for which an official receipt has not been received from the receiving command. Filed by document Julian date then by document number.

B. Contents

(1) Transfer DD-1348-1 copy for each equipment item

C. Flows In

(F 2.19) 11 - CPD11 Transfer DD-1348-1's (PA)

D. Flows Out

(F 2.22) CPD11 - 11 Transfer DD-1348-1's (PA)

E. Remarks

DD12 OPTAR RECORDS

A. Used for user department accounting of OPTAR funds expenditure. Entry records are in chronological order.

B. Contents (of each record entry)

(1) Julian date
(2) Requisition number
(3) Cost
(4) OPTAR balance remaining
(5) OPTAR balance adjustments (price changes) (if applicable)
(6) Purchase Order number (commercial requisitions)
(7) Cost code
(8) Date item received
(9) Remarks (Item nomenclature)

C. Flows In

(F 2.3) (F 2.11)	6	- DD12	Department OPTAR Accounting Data

D. Flows Out

(F 2.3) (F 2.11)	DD12	- 5	OPTAR Record Balance

E. Remarks

(1) Exact data entries may vary in different department files. Items (1) through (5) above are fairly standard; others are useful.

DD13 PENDING ITEM REQUISITIONS/REQUESTS

A. A file of requisitions and Validated Item Requests submitted by the department for which the equipment has not been received. Filed by Julian date of request.

B. Contents

(1) DD-1348 Requisitions copies
(2) DD-1348 Validated Item Requests copies

C. Flows In

(F 2.3)	7	- DD13	Requisitions (OPTAR, OPN)
(F 2.3)	7	- DD13	Validated Item Requests

D. Flows Out

(F 2.11) (F 2.15)	DD13	- 7	Requisition Suspense Documents

E. Remarks

(1) Used to check status of items ordered but not received.

DD14 PENDING RELEASED REQUISITIONS/PURCHASE ORDERS

A. A file of data on equipment requisitions submitted by the department for which the equipment has not been received. Filed by Julian date of request.

B. Contents

(1) DD-1348 Released NSS Requisitions copies
(2) Purchase Orders/PO Amendments copies

C. Flows In

(F 2.11) 7 - DD14 Purchase Orders/PO Amendments

D. Flows Out

(F 2.15) DD14 - 7 Requisition Suspense Documents

E. Remarks

(1) Used to check status of items ordered but not received.

DD15 DOCUMENT NUMBERS

A. Used to assign requisition document numbers from those designated by the Comptroller to DD-1348's processed by the department.

B. Contents

(1) Document numbers

C. Flows In

(F 2.3) 1.3 - DD15 Department Document Numbers (used)

D. Flows Out

(F 2.3) DD15 - 1.3 Department Document Numbers

E. Remarks

(1) Normally, this file is combined with DD1.

(2) Numbers in the block are typically used more than once during the year of their assignment to a department.

(3) After a number is used, an indication of its use is recorded.

DD16 PRC'S

A. Contains one Property Record Card for each item of Plant Account equipment held by a specific user department.

B. Contents

(1) One Property Record Card (DD-1342) for each item of PA equipment assigned to the department.

C. Flows In

(F 2.15) 17 - DD16 PRC's
(F 2.18)

D. Flows Out

(F 2.24) DD16 - 22 PRC's

(F 2.24) DD16 - 34 PRC's

E. Remarks

(1) The PRC's in this file are copies of the originals in CDP5.

DD17 NID NUMBERS

A. A listing of available NID numbers assigned to that department by the Plant Account clerk from which the next NID will be selected and assigned to the most recently "plant accounted" equipment item.

B. Contents

(1) NID numbers assigned by the Plant Account clerk

C. Flows In

D. Flows Out

(F 2.15) DD17 - 14 NID Numbers

E. Remarks

(1) Listing may be no more elaborate than the stickers containing the NID numbers which are placed on the equipment.

(2) This file may be combined with DD7.

(3) Entries are made in this file on a periodic basis when PA NID stickers are forwarded by the PA clerk in response to a user department request.

DD18 EQUIPMENT DATA

A. A listing of data on all equipment within a department. Entries are filed as desired by the user department. Although the computer equipment listing is in order of equipment entry into the department inventory, a computer sort can be used to reorder the file as desired.

(inventory)

Data used for equipment inventory.

(transfer)

Data included in an Equipment Transfer List.

B. Contents (contained in computer equipment listing single item entry)

(1) Nomenclature
(2) Manufacturer
(3) Model number
(4) Manufacturer serial number
(5) NSN (when applicable)
(6) NID
(7) Item cost
(8) Location (building, room)
(9) Sequence number
(10) Department code
(11) Manufacturer code
(12) Year of manufacture
(13) Year of NPS receipt
(14) Fund Code (OPN, Research, OPTAP)
(15) Requisition number or Purchase Order number
(16) Persons responsible
(17) Available for loan (yes or no)
(18) Special/general purpose indicator
(19) Minor property (non Plant Account) indicator
(20) Calibration due month

C. Flows In

(F 2.15) (F 2.18)	13	- DD18	Equipment Data
(F 2.18) (F 2.24)	22	- DD18	Custody Change Data/ Equipment Deletion Entries

D. Flows Out

(F 2.16)	DD18	- i	Equipment Data (inventory)
(F 2.19)	DD18	- 25	Equipment Data (transfer)
(F 2.24)	DD18	- 34	Equipment Data
(F 2.15)	DD18	- 14	Equipment Data

E. Remarks

(1) Minimum data necessary are items (1) through (4). Other items are available on computer equipment listing. Data fields used in non-computerized department records will vary.

(2) Alternative is to utilize DD16 for information.

DD19 EQUIPMENT CALIBRATION RECORDS

A. Used by departments to determine when equipment items are due for calibration and when they were last calibrated.

B. Contents (of each item entry)

(1) Nomenclature
(2) Manufacturer
(3) Model number
(4) Manufacturer serial number
(5) NID
(6) Calibration due date
(7) NSN (stock items)
(8) Last calibration date
(9) Work Center Code

C. Flows In

(F 2.17) 21 - DD19 Calibration Due Data

D. Flows Out

(F 2.17) DD19 - 20 Calibration Due Data

E. Remarks

(1) Data items (1) through (6) are minimum necessary. Items (7) through (9) are included on a computer printout provided by the local U.S. Army calibration activity used by the Electrical Engineering Department. (EE is the department with the greatest number of calibration-required equipment.)

DD20 REQUISITIONS HISTORY

A. A file of past completed requisitions initiated by a user department. Filed by requisition Julian date.

B. Contents

(1) Completed Requisition DD-1348 copies for all items received as a result of department requisition actions.

C. Flows In

(F 2.15) 7 - DD20 User Receipt/Requisition Suspense Documents

D. Flows Out

E. Remarks

DD21 EQUIPMENT TRANSFER HISTORY

A. Used to hold copies of DD-1348-1's for equipment turned in by the department. It is the department's only record of having transferred custody of the equipment concerned.

B. Contents

(1) Transfer DD-1348-1's signed by Supply Department Receiving Division personnel

C. Flows In

(F 2.24) 32 - DD21 Transfer Receipt DD-1348-1's

D. Flows Out

E. Remarks

(1) Receipt is actually presented to the User Department at the time of equipment pick-up and not routed directly from Issue Control as might be inferred from Figure 2.24.

RD22 REIMBURSABLE FUNDS RECORDS

A. Used for unofficial accounting of expenditures from Reimbursable Fund monies by the Dean of Research office. Maintained on NPS IBM 3033AP. Maintained by Reimbursable Funds Account Number.

B. Contents (of each record entry)

(1) Amount obligated
(2) Date of data entry
(3) Expenditure code
(4) Nomenclature
(5) Vendor
(6) Requisition number

C. Flows In

(F 2.6), (F 2.11) 9 - RD22 RAO Reimbursable Funds Accounting Data

D. Flows Out

(F 2.6), (F 2.11) RD22 - 8 Reimbursable Funds Record Balance

E. Remarks

(1) If applicable, additional entries are made under the requisition number with:

(a) Purchase Order numbers (commercial purchases)

SCD23 PENDING PURCHASE ORDER REQUISITIONS

A. A file of Purchase Orders which have been forwarded from NPS but for which the items ordered have not been received. Filed by Purchase Order number.

B. Contents

(1) Completed DD-1348's
(2) Purchase Orders
(3) SF-36 (if applicable)

C. Flows In

(F 2.8) 4.5 - SCD23 Approved Requisitions

(F 2.9) 4.5 - SCD23 Purchase Orders/PO Amendments

D. Flows Out

(F 2.12) SCD23 - 36.3 Requisition Suspense Documents

E. Remarks

(1) Used to obtain status of ordered items from commercial vendors.

SD24 COMPLETED SURVEYS

A. A file of completed NPS item surveys which have been approved and on which final action has been taken. Filed by survey serial number.

B. Contents

(1) Completed Surveys (DD-2090 or DD-200)

C. Flows In

(F 2.24) 35 - SD24 Surveys

D. Flows Out

E. Remarks

(1) Survey serial number is the same as the Transfer DD-1348-1 serial number in the case of damaged items turned in.

SID25 PENDING RELEASED NSS REQUISITIONS

A. A file of requisitions submitted by NPS through the Naval Supply System for which the items have not been received. Filed by priority (three categories), then by Julian date and requisition serial number.

B. Contents

(1) NSS Released Requisition DD-1348 copies

C. Flows In

(F 2.8) 4.3 - SID25 Released NSS Requisitions

D. Flows Out

(F 2.12) SID25 - 36.4 Released NSS Requisitions

E. Remarks

SID26 REQUISITIONS HISTORY

A. A file of completed requisitions on items received by NPS. Filed by requisition number.

B. Contents

(1) Completed Requisition DD-1348's with date of item receipt

(2) Item Receipts signed by department receiving personnel

C. Flows In

(F 2.12) 36.5 - SID26 Completed Requisition Documents

D. Flows Out

E. Remarks

SID27 PURCHASE ORDERS HISTORY

A. A file of purchase orders on completed commercial purchase requisitions for which the equipment has been received by NPS. Filed by Purchase Order number.

B. Contents
(1) Completed Requisition DD-1348 copies
(2) Purchase Orders/PO Amendments (DD-1155) copies
(3) SF-36 copies (if applicable)

C. Flows In

(F 2.12) 36.5 - SID27 Completed Purchase Orders/ PO Amendments

D. Flows Out

E. Remarks

(1) Either the DD-1348 or the DD-1155 will contain the date of equipment receipt and department receiving signature.

SID28 PENDING EQUIPMENT TRANSFER LISTS

A. A file of Equipment Transfer Lists received by Supply and forwarded to the PA clerk on which replies have not been received.

B. Contents

(1) User Department Transfer Memoranda

C. Flows In

(F 2.19) 26 - SID28 Equipment Transfer Lists

D. Flows Out

(F 2.19) SID28 - 31 Equipment Transfer Lists

E. Remarks

SID29 PENDING TRANSFER DD-1348-1'S

A. A file of data on equipment items transferred from NPS for which signed receipts have not been received. Filed by transfer DD-1348-1 Julian date then by DD-1348-1 serial number.

B. Contents

(1) Transfer DD-1348-1 copies

C. Flows In

(F 2.19) 31 - SID29 Transfer DD-1348-1 copies

D. Flows Out

(F 2.19) SID29 - 33 Transfer DD-1348-1 copies

E. Remarks

SID30 EQUIPMENT TRANSFER RECEIPTS

A. A file of Transfer Receipt DD-1348-1's which have been signed certifying receipt of items transferred from NPS.

B. Contents

(1) Transfer Receipt DD-1348-1's

C. Flows In

(F 2.19) 33 - SID30 Transfer Receipt DD-1348-1's

D. Flows Out

E. Remarks

SPD31 PENDING PURCHASE ORDERS

A. A file of Purchase Orders/Purchase Order Amendments which have been forwarded by NPS for which the items have not been received. Maintained by PO number.

B. Contents

(1) DD-1155 Purchase Order/PO Amendment copies

C. Flows In

(F 2.9) 4.2 - SPD31 Purchase Orders/PO Amendments

D. Flows Out

(F 2.12) SPD31 - 36.6 Purchase Orders/PO Amendments

E. Remarks

(1) This file is maintained by individual buyers for the PO's they created.

SRD32 PENDING RELEASED REQUISITIONS

A. A file used to determine the delivery location of equipment which has been ordered by not received by NPS.

B. Contents

(1) Completed Requisition DD-1348's
(2) Purchase Order (DD-1155) copies (commercial purchases)
(3) SF-36's (if applicable)

C. Flows In

(F 2.8) 4.4 - SRD32 Released NSS Requisitions

(F 2.9) 4.4 - SRD32 Approved Requisitions

(F 2.9) 4.4 - SRD32 Purchase Orders/PO Amendments

D. Flows Out

(F 2.12) SRD32 - 36.1 Requisition Suspense Documents

E. Remarks

APPENDIX D

DATA FLOWS

Approved Item Request

A. An Item Request (OPTAR, OPN) which has received a department approval signature but which has not yet been assigned a document number.

B. Contents

(1) DD-1348 Requisition
(2) SF-36 (if applicable)

C. Reference Descriptions

(F 2.2) S: 1.2 Approve Item Requests
D: 1.3 Enter Document Numbers

D. Remarks

Approved Requisition

A. An Requisition containing an approval stamp and initials signifying approval by the Comptroller Department for requisition action.

(NSS), (PA)

Refers to type of Requisition.

B. Contents

(1) DD-1348 Requisition
(2) SF-36 (If applicable)

C. Reference Descriptions

(F 2.2)	S: 3	Enter NPS Approval/ Store Accounting Data
	D: 4	Produce/Route External Requisitions
(F 2.7)	S: 3.3	Enter NPS Approval
	D: 4	Produce/Route External Requisitions
(F 2.8)	S: 3	Enter NPS Approval/ Store Accounting Data
	D: 4.1	Determine Item NSS Availability
(F 2.9)	S: 4.2	Create Purchase Orders/ PO Amendments
	D: 4.5	Store Requisition Documents/ Route Purchase Order copies
(F 2.9)	S: 4.5	Store Requisition Documents/ Route Purchase Order copies
	D: SCD23	PENDING PURCHASE ORDER REQUISITIONS
(F 2.9)	S: 4.2	Create Purchase Orders/ PO Amendments
	D: 4.4	Store Requisition Documents
(F 2.9)	S: 4.4	Store Requisition Documents
	D: SRD22	PENDING RELEASED REQUISITIONS

(NSS)

(F 2.8)	S: 4.1	Determine Item NSS Availability
	D: 4.3	Verify Price/Route NSS Requisitions

(PA)

(F 2.7)	S: 3.3	Enter NPS Approval
	D: 11	Store Correct Status Data
(F 2.7)	S: 11	Store Correct Status Data
	D: CPD3	PENDING APPROVED PA REQUISITIONS
(F 2.11)	S: CPD3	PENDING APPROVED PA REQUISITIONS
	D: 11	Store Correct Status Data Files

D. Remarks

Bid Request

A. A request from the Purchasing Branch to vendors for a price quotation on a potential purchase item.

B. Contents

(1) Nomenclature
(2) Manufacturer
(3) Model number

C. Reference Descriptions

(F 2.9) S: 4.2 Create Purchase Orders/ PO Amendments
D: v VENDORS

D. Remarks

Calibration Completed Data

A. Data on equipment relevant to completed calibration.

B. Contents

(1) Nomenclature
(2) Manufacturer
(3) Model number
(4) Manufacturer serial number
(5) NID number
(6) Next calibration due date
(7) Last calibration date

C. Reference Descriptions

(F 2.17) S: c CALIBRATION FACILITY
D: 21 Enter Calibration Due Data

D. Remarks

(1) Departments may not necessarily enter both date of calibration and next calibration due date.

Calibration Due Data

A. Information permitting identification of equipment due for calibration.

B. Contents

(1) Nomenclature
(2) Manufacturer
(3) Model number
(4) Manufacturer serial number
(5) NID number
(6) Calibration due date

C. Reference Descriptions

(F 2.17)	S: f D: 20	CALIBRATION ADP FACILITY Identify Equipment Requiring Calibration
(F 2.17)	S: 21 D: f	Enter Calibration Due Data CALIBRATION ADP FACILITY
(F 2.17)	S: 21 D: DD19	Enter Calibration Due Data EQUIPMENT CALIBRATION RECORDS
(F 2.17)	S: DD19 D: 20	EQUIPMENT CALIBRATION RECORDS Identify Equipment Requiring Calibration

D. Remarks

(1) Data used to identify equipment may be less that that noted and could include location.

Completed Requisition Documents

A. Documents used by the Supply Department for receipt accounting and historical purposes.

(PO), (NSS)

Refers to type of Requisition.

B. Contents

(1) Item Receipt (see below)
(2) DD-1348-1 Invoice with accurate price (NSS Requisitions)
(3) Miscellaneous: Invoice and other Documents

C. Reference Descriptions

(F 2.12)	S: 36.5	Store Completed Requisition Documents
	D: SID26	REQUISITIONS HISTORY

(PO)

(F 2.12)	S: 36.3	Route Completed Requisition Data
	D: 36.5	Store Completed Requisition Documents

(NSS)

(F 2.12)	S: 36.4	Route Completed Requisition Documents/NSS Price Changes
	D: 36.5	Store Completed Requisition Documents

D. Remarks

Custody Change Data

A. Data changed due to equipment department custody change.

B. Contents

(1) Equipment Nomenclature
(2) NID Number
(3) User Department (Receiving)

C. Reference Descriptions

(F 2.18)	S: 23	Create Custody Change Memoranda
	D: 24	Enter Data Changes on PRC's
(F 2.18)	S: 24	Enter Data Changes on PRC's
	D: 16	Store PRC's

D. Remarks

Department Document Number

A. Serial number assigned by department to each requisition. The Document Number is part of the Requisition Number.

(used)

A Document Number which has just been assigned to a requisition.

B. Contents

(1) One serial number for each requisition

C. Reference Descriptions

(F 2.3) S: DD15 DOCUMENT NUMBERS
D: 1.3 Enter Document Numbers

(used)

(F 2.3) S: 1.3 Enter Document Numbers
D: DD15 DOCUMENT NUMBERS

D. Remarks

(1) NAVAL POSTGRADUATE SCHOOL NOTICE 4235 [Ref. 12] assigns a block of these numbers to each department on an annual basis. They are used in sequence and it is permissable to use a number more than once in a year.

(2) Departments may use the Department PENDING REQUISITIONS/ REQUESTS File (DD2) to account for Document Numbers vice a separate file.

Department OPTAR Accounting Data

A. Information from the item request entered into the Department OPTAR RECORDS for accounting purposes.

B. Contents

(1) SEE DD12 (OPTAR RECORDS)

C. Reference Descriptions

(F 2.3) S: 6 Store Accounting Data
D: DD12 OPTAR RECORDS

D. Remarks

Department OPTAR Record Balance

A. Current amount of OPTAR funds available for department spending indicated in department OPTAR RECORDS.

B. Contents

(1) Department OPTAR balance in dollars

C. Reference Descriptions

(F 2.3) S: DD12 OPTAR RECORDS
D: 5 Verify Funds Available

D. Remarks

Disposition Directive

A. A letter from authority controlled disposition of an equipment item directing or authorizing disposition.

B. Contents

(1) Equipment Identification
(2) Disposition Destination

C. Reference Descriptions

(F 2.19) S: h Higher Authority
D: 30 Produce Disposition Memoranda for Controlled Equipment

D. Remarks

Disposition Request

A. Request from NPS to higher authority controlling disposition of controlled equipment requesting equipment disposition.

B. Contents

(1) Equipment Identification
(2) Disposition Request

C. Reference Descriptions

(F 2.19) S: 29 Create Dispositon Requests for Controlled Equipment
D: h HIGHER AUTHORITY

D. Remarks

Equipment Calibration Reference Data

A. Specification of interval between calibration of equipment items authorized by governing directives.

B. Contents

(1) Equipment nomenclature
(2) Manufacturer
(3) Model number
(4) Time interval between calibrations

C. Reference Descriptions

(F 2.17) S: r EQUIPMENT CALIBRATION REFERENCE
D: 21 Enter Calibration Due Data

D. Remarks

Equipment Data

A. Data entered in department EQUIPMENT DATA.

(inventory)

Data required for department equipment inventory.

(transfer)

Data required for Equipment Transfer Lists.

(controlled)

Elements used to identify equipment whose dispostion is controlled by authority higher than NPS.

(survey)

Data required for Surveys.

B. Contents

(1) See DD18 (EQUIPMENT DATA)

(inventory)

(1) Nomenclature
(2) Manufacturer
(3) Model number
(4) Manufacturer serial number
(5) NID Number
(6) Location

(transfer)

(1) See Figure 2.20 (NPS Excess Property Transfer Memorandum)

(controlled)

(1) Equipment Nomenclature
(2) Equipment Federal Stock Classification

(survey)

See Survey.

C. Reference Descriptions

(F 2.15) (F 2.18)	S: 13 D: DD18	Store Equipment Data EQUIPMENT DATA
(F 2.15)	S: DD18 D: 14	EQUIPMENT DATA Create PRC's (rough)

(inventory)

(F 2.16)	S: DD18 D: 18	EQUIPMENT DATA Produce Department PA Equipment Inventory Report

(transfer)

(F 2.19)	S: DD18 D: 25	EQUIPMENT DATA Create Equipment Transfer Lists
(F 2.19)	S: 27	Specify Immediate Transfer Equipment
	D: 28	Remove PRC's of Items to be Transferred
(F 2.19)	S: 30	Produce Disposition Memoranda for Controlled Equipment
	D: 28	Remove PRC's of Items to be Transferred
(F 2.19)	S: 27	Specify Immediate Transfer Equipment
	D: 31	Create/Route Transfer DD-1348-1's
(F 2.19)	S: 27	Specify Immediate Transfer Equipment
	D: 29	Create Disposition Requests for Controlled Equipment
(F 2.19)	S: 30	Produce Disposition Memoranda for Controlled Equipment
	D: 31	Create/Route Transfer DD-1348-1's

(controlled)

(F 2.19)	S: d	Higher Authority Directives
	D: 27	Specify Immediate Transfer Equipment
(F 2.19)	S: CPD7	PRC'S
	D: 27	Specify Immediate Transfer Equipment

(survey)

(F 2.19)	S: DD18 D: 34	EQUIPMENT DATA Create Equipment Surveys (request)

D. Remarks

(1) Equipment Data is intended to be comprehensive information about the equipment item in question. All or part of it is used for various data transactions.

Equipment Deletion Entry

A. Action taken after equipment is deleted from an equipment data file.

B. Contents

(1) Single line drawn through deleted equipment data on manually kept listing; deletion of the equipment data in the computerized listing.

C. Reference Descriptions

(F 2.18)	S: 22	Enter Corrections in Department Equipment Files
	D: DD18	EQUIPMENT DATA
(F 2.22) (F 2.24)	S: 16	Enter Corrections in NPS PA Equipment Files
	D: CPD6	PA EQUIPMENT MASTER

D. Remarks

Equipment Nameplate Data

A. Equipment data indiginous to the individual equipment item received.

(PA)

Date referring to PA Equipment.

B. Contents

(1) Manufacturer serial number
(2) Any other data unique to the specific equipment item

C. Reference Descriptions

(F 2.15)	S: e	EQUIPMENT ITEM
	D: 13	Store Equipment Data

(PA)

(F 2.15)	S: e	EQUIPMENT ITEM
	D: 14	Create PRC's (rough)

D. Remarks

(1) Data in addition to item (1) above may be included depending on the type of equipment.

(2) Equipment Nameplate Data becomes part of Equipment Data once it is recorded.

Equipment Transfer List

A. A list of equipment items compiled by the user department who desires to transfer them.

B. Contents

(1) Equipment Data (transfer)
(2) Transfer Destination (optional)

C. Reference Descriptions

(F 2.19)	S: 25	Create Equipment Transfer Lists
	D: 26	Store/Route Equipment Transfer Lists
(F 2.19)	S: 25	Create Equipment Transfer Lists
	D: 27	Specify Immediate Transfer Equipment
(F 2.19)	S: 26	Store/Route Equipment Transfer Lists
	D: 27	Specify Immediate Transfer Equipment
(F 2.19)	S: 26	Store/Route Equipment Transfer Lists
	D: SID28	Pending Equipment Transfer Lists
(F 2.19)	S: SID28	Pending Equipment Transfer Lists
	D: 31	Create/Route Transfer DD-1348-1's

D. Remarks

(1) Normal routing for Equipment Transfer Lists is to the Supply Department with an advance copy to the PA clerk (25-26, 25-27). Often the advance copy is not sent to the PA clerk and list is received by the PA clerk from the Supply Department (26-27).

Invalid Item Request

A. Request for an item not authorized for purchase with Reimbursable Funds.

B. Contents

(1) DD-1348 Validated Item Request
(2) SF-36 (if applicable)

C. Reference Descriptions

(F 2.6)	S: 2.1	Verify Item Requests' Validity
	D: 1	Create Item Requests/ Store Accounting Data
(F 2.6)	S: 8	Verify Funds Available
	D: 1	Create Item Requests/ Store Accounting Data

D. Remarks

Inventory Data

A. Listing of equipment within the department.

(actual)

Refers to the data gathered by sight observation during an inventory action.

C. Reference Descriptions

(F 2.16) S: 18 Produce Department PA Equipment Inventory Report
D: 19 Produce NPS PA Equipment Inventory Report

(actual)

(F 2.16) S: i DEPARTMENT INVENTORY TEAM
D: 18 Produce Department PA Equipment Inventory Report

D. Remarks

Item Bid

A. Price quotation from a vendor to the Purchasing Division on an item of equipment which is a potential purchase from that vendor.

B. Contents

(1) Equipment identification
(2) Price Quotation

C. Reference Descriptions

(F 2.9) S: v VENDORS
D: 4.2 Create Purchase Orders/ PO Amendments

D. Remarks

Item Receipt

A. Document used by the Supply Department Receiving Division to verify delivery of the item listed upon it to the correct department. The document may be a copy of the Approved Requisition DD-1348, PO, or an invoice accompanying the delivered item.

B. Contents

(1) Stamped document with:
(a) Date of equipment receipt by user department
(b) Name and signature of user department individual receiving the item on the document

C. Reference Descriptions

(F 2.12)	S: 12	Enter/Route Received Item Data
	D: 36.2	Route Supply Receipt Documents
(F 2.12)	S: 36.2	Route Supply Receipt Documents
	D: 36.3	Route Completed Requisition Data
(F 2.12)	S: 36.3	Route Completed Requisition Data
	D: 11	Store Correct Status Data
(F 2.14)	S: 36	Store/Route Completed Requisition Data
	D: 11	Store Correct Status Data
(F 2.14)	S: 11	Store Correct Status Data
	D: CPD5	PA EQUIPMENT RECEIPTS
(F 2.15)	S: CPD5	PA EQUIPMENT RECEIPTS
	D: 11	Store Correct Status Data

(Unsigned)

(F 2.12)	S: 36.1	Verify Item Receipt Documents
	D: 12	Enter/Route Received Item Data

D. Remarks

(1) The signature of the receiving individual is the only difference between the Item Receipt and Item Receipt (unsigned).

Item Receipt Documents

A. All documentation received by NPS at the time of receipt of an item being delivered in response to an NPS Requisition.

B. Contents

(1) Item shipping documentation
(2) Item invoices
(3) Transfer DD-1348-1 with the correct price (NSS requisitions)
(4) Equipment manuals, etc.

C. Reference Descriptions

(F 2.12) S: v VENDORS
D: 36.1 Verify Item Receipt Documents

(F 2.12) S: n NAVY SUPPLY SYSTEM
D: 36.1 Verify Item Receipt Documents

D. Remarks

Item Request

A. A request for an item by the ultimate user for financial accounting and approval.

(OPTAR), (OPN), (RF)

A request for an item proposing expenditure of monies from the fund(s) noted.

B. Contents

(1) DD-1348 Item Request
(2) SF-36 (if applicable)

C. Reference Descriptions

(OPN)

(F 2.3) S: 1.1 Create Item Requests
D: 1.2 Approve Item Requests

(OPTAR)

(F 2.3) S: 1.1 Create Item Requests
D: 5 Verify Funds Available

(RF)

(F 2.3) S: 1.1 Create Item Requests
D: 1.3 Enter Document Numbers

D. Remarks

(1) Department does not have approval authority for RF expenditures but does assign requisition numbers for ultimate users in that department.

Item Specifications

A. An item's characteristics and possible purchase sources (for potential commercial purchases).

B. Contents

(1) Nomenclature
(2) Manufacturer
(3) Model number
(4) Cost
(5) Possible supplier vendors (commercial purchase)
(6) National Stock number (NSS purchase)
(7) Equipment function (if not obvious)
(8) Power requirements
(9) Piping/electrical connections
(10) Controls and indicators
(11) Required functional tolerances

C. Reference Descriptions

(F 2.2)	S: s D: 1	ITEM INFORMATION SOURCE Create Item Requests/ Store Accounting Data
(F 2.3)	S: s D: 1.1	ITEM INFORMATION SOURCE Create Item Requests
(F 2.8)	S: m D: 4.1	NAVY MANAGEMENT DISTRIBUTION LIST Determine Item NSS Availability

D. Remarks

(1) Minimum specifications include items (1) through (6). Additional specifications vary with type of equipment; typical examples are (7) through (11).

(2) Detailed specifications are necessary to assist Supply in checking for NSS stock equipment which will substitute for commercial purchases. The specifications are also used in the bid/award process; an alternate manufacturer's equipment may be purchased.

Justified Requisition

A. A requisition which Issue Control has verified cannot be filled from the Navy Supply System inventory or which has a satisfactory justification for commercial purchase of an item available in the NSS inventory.

B. Contents

(1) DD-1348 Approved Requisition initialed by the Issue Control clerk
(2) SF-36 (if applicable)

C. Reference Descriptions

(F 2.8) (F 2.9)	S: 4.1 D: 4.2	Determine Item NSS Availability Create Purchase Orders/ PO Amendments

D. Remarks

Location

A. Building and room in which an item of PA Equipment is located.

B. Contents

(1) Building number/name
(2) Room number

C. Reference Descriptions

(F 2.18) S: 16 Enter Corrections in NPS PA Equipment Files
D: CPD7 PRC'S

D. Remarks

NID Number

A. The Navy Identification Number assigned to an item of Plant Account equipment.

B. Contents

(1) NID Number

C. Reference Descriptions

(F 2.15) S: DD17 NID NUMBERS
D: 14 Create PRC's (rough)

D. Remarks

(1) The NID file may be kept within the Department EQUIPMENT DATA File.

(2) NID Numbers are entered into this file periodically when PA stickers are received from the PA clerk.

NID Number File Data

A. Data entered into the NPS PA EQUIPMENT NID NUMBERS File.

B. Contents

(1) See CPD8 (PA EQUIPMENT NID NUMBERS)

C. Reference Descriptions

(F 2.15) S: 16 Enter Corrections in NPS PA Equipment Files
D: CPD8 PA EQUIPMENT NID NUMBERS

D. Remarks

NPS PA Equipment Inventory Results

A. Report required by NSC Oakland verifying NPS PA Equipment inventory.

B. Contents

(1) Letter stating equipment items whose presence is verified

C. Reference Descriptions

(F 2.16) S: 19 Produce NPS PA Equipment Inventory Report
D: o NSC OAKLAND

D. Remarks

NPS OPTAP Account Balance

A. Current department OPTAR balance remaining for expenditure in official Comptroller OPTAR Accounts.

B. Contents

(1) OPTAR account balance in dollars

C. Reference Descriptions

(F 2.7) S: CBD1 OPTAR ACCOUNTS
D: 3.2 Verify Funds Available

D. Remarks

NPS OPTAR Accounting Data

A. Data from the item requisition entered into the NPS OPTAR ACCOUNTS for accounting purposes.

B. Contents

(1) NPS OPTAR Accounting Data

C. Reference Descriptions

(F 2.7) S: 10 Store Accounting Data
D: CBD1 OPTAR ACCOUNTS

D. Remarks

PA Equipment History Card

A. Card maintained in NPS PA EQUIPMENT HISTORY on a PA equipment item which has been transferred from NPS.

B. Contents

(1) NPS PA Equipment Nomenclature File Card with stamped entry on which the disposition of the item and date of transfer from the NPS Plant Account are written.

C. Reference Descriptions

(F 2.22) (F 2.24) S: 16 Enter Corrections in NPS PA Equipment Files
D: CPD10 PA EQUIPMENT HISTORY

D. Remarks

NPS Reimbursable Funds Account Balance

A. Current Reimbursable Funds Account balance remaining for expenditure in official Comptroller RF ACCOUNTS for an individual account.

B. Contents

(1) Reimbursable Fund Account balance in dollars

C. Reference Descriptions

(F 2.7) S: CBD2 REIMBURSABLE FUNDS ACCOUNTS
D: 3.2 Verify Funds Available

D. Remarks

NPS Reimbursable Funds Accounting Data

A. Data from the item requisition entered into the NPS REIMBURSABLE FUNDS ACCOUNTS for accounting purposes.

B. Contents

(1) NPS Reimbursable Fund Accounting Data

C. Reference Descriptions

(F 2.7) S: 10 Store Accounting Data
D: CBD2 REIMBURSABLE FUNDS ACCOUNTS

D. Remarks

Price Corrected DD-1348

A. Approved requisition with the correct price entered on it for NSS Requisitions on which price changes have occurred since since the requisitions was released from NPS.

B. Contents

(1) Approved Requisition DD-1348 with corrected price

C. Reference Descriptions

(F 2.12)	S: 36.4	Route Completed Requisition Documents/NSS Price Changes
	D: 10	Store Accounting Data
(F 2.14)	S: 36	Store/Route Completed Requisition Data
	D: 10	Store Accounting Data

D. Remarks

Purchase Order Number

A. The number assigned to a Purchase Order by the Purchasing Branch when it is created.

B. Contents

(1) Purchase Order Number

C. Reference Descriptions

(F 2.12)	S: 36.3	Route Completed Requisition Data
	D: 36.6	Extract Completed Purchase Orders

D. Remarks

Purchase Order/PO Amendment (DD-1155)

A. An item requisition forwarded to a commercial vendor for item procurement. PO Amendments are official adjustments to the terms of the original Purchase Order.

(completed)

A Purchase Order/Purchase Order Amendment on an item which has been received at NPS.

(OPTAR, OPN), (RF), (PA)

Refers to funding/equipment ordered by Purchase Order.

B. Contents

(1) DD-1155 Purchase Order (or Delivery Order)

C. Reference Descriptions

(F 2.2)	S: 4	Produce/Route External Requisitions
	D: v	VENDORS
(F 2.9)	S: 4.2	Create Purchase Orders/ PO Amendments
	D: v	VENDORS
(F 2.9)	S: 4.2	Create Purchase Orders/ PO Amendments
	D: SPD31	PENDING PURCHASE ORDERS
(F 2.9)	S: 4.2	Create Purchase Orders/ PO Amendments
	D: 4.4	Store Requisition Documents
(F 2.9)	S: 4.4	Store Requisition Documents
	D: SRD22	PENDING RELEASED REQUISITIONS
(F 2.9)	S: 4.5	Store Requisition Documents/ Route Purchase Order Copies
	D: SCD23	PENDING PURCHASE ORDER REQUISITIONS
(F 2.9)	S: 4.5	Store Requisition Documents/ Route Purchase Order Copies
	D: 10	Store Accounting Data
(F 2.9)	S: 4.2	Create Purchase Orders/ PO Amendments
	D: 4.5	Store Requisition Documents/ Route Purchase Order Copies
(F 2.9)	S: 4.5	Store Requisition Documents/ Route Purchase Order Copies
	D: 9	Store Accounting Data
(F 2.11)	S: 7	Store Correct Status Data
	D: DD14	PENDING RELEASED REQUISITIONS/ PURCHASE ORDERS
(F 2.11)	S: 4	Produce/Route External Requisitions
	D: 10	Store Accounting Data
(F 2.12)	S: SPD31	PENDING PURCHASE ORDERS
	D: 36.6	Extract PO Suspense Copy

(OPTAR, OPN)

(F 2.9)	S: 4.5	Store Requisition Documents/ Route Purchase Order Copies
	D: 6	Store Accounting Data
(F 2.11)	S: 4	Produce/Route External Requisitions
	D: 6	Store Accounting Data
(F 2.11)	S: 4	Produce/Route External Requisitions
	D: 7	Store Correct Status Data

(RF)

(F 2.11)	S: 4	Produce/Route External Requisitions
	D: 9	Store Accounting Data
(F 2.11)	S: 9	Store Accounting Data
	D: 7	Store Correct Status Data

(PA)

(F 2.11)	S: 10	Store Accounting Data
	D: 11	Store Correct Status Data
(F 2.11)	S: 11	Store Correct Status Data
	D: CPD4	PENDING RELEASED PA REQUISITIONS

(completed)

(F 2.12)	S: 36.5	Store Completed Requisition Documents
	D: SID27	PURCHASE ORDERS HISTORY

D. Remarks

(1) The term "Purchase Orders" includes Delivery Orders, which are identical except that the equipment is purchased through a previously established contract vice bid/award competion.

PA Equipment Master Data

A. Data entered into the NPS PA EQUIPMENT MASTER File

B. Contents

(1) See Contents of CPD6 (PA EQUIPMENT MASTER)

C. Reference Descriptions

(F 2.15)	S: 16	Enter Corrections in NPS PA Equipment Files
	D: CPD6	PA EQUIPMENT MASTER

D. Remarks

PA Equipment Nomenclature Card

A. Data card maintained in NPS PA EQUIPMENT NOMENCLATURE File.

B. Contents

(1) See CPD9 (PA EQUIPMENT NOMENCLATURE)

C. Reference Descriptions

(F 2.15)	S: 16	Enter Corrections in NPS PA Equipment Files
	D: CPD9	PA EQUIPMENT NOMENCLATURE
(F 2.22)	S: CPD9	PA EQUIPMENT NOMENCLATURE
(F 2.22)	D: 16	Enter Corrections in NPS PA Equipment Files

D. Remarks

PA Equipment Removal Notification

A. Notification to NSC Oakland of removal of PA Equipment items from the NPS Account.

B. Contents

(1) NPS PRC (original) for removed equipment

C. Reference Descriptions

(F 2.22) (F 2.24)	S: 16	Enter Corrections in NPS PA Equipment Files
	D: o	NSC OAKLAND

D. Remarks

PRC CODES

A. Equipment codes required to complete documentation on a PRC.

B. Contents

(1) See PRC.

C. Reference Descriptions

(F 2.15)	S: p	PLANT ACCOUNT DIRECTIVES
	D: 15	Create PRC's

D. Remarks

PRC (DD-1342)

A. Final PRC containing equipment, requsition, and PA data necessary to be entered into the NPS PA EQUIPMENT PRC FILE.

(rough) PRC with data partially entered after user department "plant accounting."

B. Contents

(1) PRC

(rough)

(1) PRC (rough)

C. Reference Descriptions

(F 2.15)	S: 15	Create PRC's
	D: 16	Enter Corrections in NPS PA Equipment Files
(F 2.15)	S: 16	Enter Corrections in NPS PA Equipment Files
	D: CPD7	PRC'S
(F 2.19)	S: 16	Enter Corrections in NPS PA Equipment Files
(F 2.24)	D: o	NSC OAKLAND
(F 2.15)	S: 15	Create PRC's
	D: o	NSC OAKLAND
(F 2.15)	S: 15	Create PRC's
	D: 17	Store PRC's
(F 2.15)	S: 17	Store PRC's
(F 2.18)	D: DD16	PRC'S
(F 2.18)	S: DD16	PRC'S
	D: 22	Enter Corrections in Dept Equipment Files
(F 2.18)	S: 22	Enter Corrections in Dept Equipment Files
	D: 23	Create Custody Change Memoranda
(F 2.18)	S: 23	Create Custody Change Memoranda
	D: 24	Enter Data Changes on PRC's
(F 2.18)	S: 24	Enter Data Changes on PRC's
	D: 13	Store Equipment Data
(F 2.18)	S: 24	Enter Data Changes on PRC's
	D: 17	Store PRC's
(F 2.22)	S: CPD7	PRC'S
(F 2.24)	D: 16	Enter Corrections in NPS PA Equipment Files
(F 2.19)	S: 28	Remove PRC's of Items to be Transferred
	D: 31	Create/Route Transfer DD-1348-1's
(F 2.19)	S: CPD7	PRC'S
	D: 28	Remove PRC's of Items to be Transferred

(F 2.19) S: 31 Create/Route Transfer DD-1348-1's
D: t Defense Property Disposal Office

(F 2.24) S: DD16 PRC'S
D: 34 Create Equipment Surveys (request)

(rough)

(F 2.15) S: 14 Create PRC's (rough)
D: 15 Create PRC's

D. Remarks

RAO Reimbursable Funds Accounting Data

A. Data from an item requisition entered into the RAO REIMBURSABLE FUNDS RECORDS for accounting purposes.

B. Contents

(1) See RD22 (REIMBURSABLE FUNDS RECORDS)

C. Reference Descriptions

(F 2.6) S: 9 Store Accounting Data
D: RD22 REIMBURSABLE FUNDS RECORDS

D. Remarks

Reimbursable Funds Account Balance

A. Current Reimbursable Funds Account balance remaining for expenditure in RAO REIMBURSABLE FUNDS RECORDS for an individual account.

B. Contents

(1) Reimbursable Funds Account Balance in dollars

C. Reference Descriptions

(F 2.6) S: RD22 REIMBURSABLE FUNDS RECORDS
(F 2.11) D: 8 Verify Funds Available

D. Remarks

Released NSS Requisition

A. An item requisition forwarded from NPS through the Navy supply system for item procurement.

(PA)

Requisition for a PA equipment item.

B. Contents

(1) DD-1348 Approved Requisition

C. Reference Descriptions

(F 2.2)	S: 4 D: n	Produce/Route External Requisitions NAVY SUPPLY SYSTEM
(F 2.8)	S: 4.3 D: n	Verify Price/Route NSS Requisitions NAVY SUPPLY SYSTEM
(F 2.8)	S: 4.3 D: 10	Verify Price/Route NSS Requisitions Store Accounting Data
(F 2.8)	S: 4.3 D: 4.4	Verify Price/Route NSS Requisitions Store Requisition Documents
(F 2.8)	S: 4.3 D: SID25	Verify Price/Route NSS Requisitions PENDING NSS RELEASED REQUISITIONS
(F 2.8)	S: 4.4 D: SRD22	Store Requisition Documents PENDING RELEASED REQUISITIONS
(F 2.11)	S: 4 D: 10	Produce/Route External Requisitions Store Accounting Data
(F 2.12)	S: SID25 D: 36.4	PENDING NSS RELEASED REQUISITIONS Route Completed Requisition Documents/NSS Price Changes

(PA)

(F 2.11)	S: 10 D: 11	Store Accounting Data Store Correct Status Data
(F 2.11)	S: 11 D: CPD4	Store Correct Status Data PENDING RELEASED PA REQUISITIONS

D. Remarks

Requisition

A. An Item Request which has received initial approval from the authority approving item procurement without consideration of official verification of funds availability.

(verified)

A Requisition for which the requested funding is available in official fund accounting records maintained by the Comptroller Department.

(OPTAR), (OPN), (RF)

Type of Requisition funding utilized.

B. Contents

(1) DD-1348 Item Request with approving signature
(2) SF-36 (if applicable)

C. Reference Descriptions

(F 2.7)	S: 3.1	Verify Requisition Codes
	D: 3.2	Verify Funds Available

(OPTAR, OPN)

(F 2.2)	S: 1	Create Item Requests/ Store Accounting Data
	D: 3	Enter NPS Approval/ Store Accounting Data
(F 2.3)	S: 1.3	Enter Document Numbers
	D: 7	Store Correct Status Data
(F 2.3)	S: 7	Store Correct Status Data
	D: DD13	PENDING ITEM REQUISITIONS/REQUESTS
(F 2.3)	S: 1.3	Enter Document Numbers
	D: 3	Enter NPS Approval/ Store Accounting Data
(F 2.7)	S: 1	Create Item Requests/ Store Accounting Data
	D: 3.1	Verify Requisition Codes

(RF)

(F 2.2)	S: 2	Enter Dean of Research Approval/ Store Accounting Data
	D: 3	Enter NPS Approval/ Store Accounting Data
(F 2.6)	S: 2.2	Enter Approval Signature
	D: 3	Enter NPS Approval/ Store Accounting Data
(F 2.7)	S: 2	Enter Dean of Research Approval/ Store Accounting Data
	D: 3.1	Verify Requisition Codes

(verified)

(F 2.7)	S: 3.2 D: 10	Verify Funds Available Store Accounting Data
(F 2.7)	S: 3.2 D: 3.3	Verify Funds Available Enter NPS Approval

(PA)

(F 2.7)	S: 3.3 D: 11	Verify Funds Available Store Correct Status Data
(F 2.7)	D: 11 D: CPD3	Store Correct Status Data PENDING APPROVED REQUISITIONS

D. Remarks

Requisition Confirmation Request/Reply

A. The Request is Supply Department notification of the initial approving authority that the corrected price of an item has increased from original price used for accounting purposes. Authorization is requested to procede with requistion action. The Reply is either affirmative or negative.

(OPTAR), (OPN), (RF)

Type of Requisition funding utilized.

B. Contents

(1) Requisition/Item Identification
(2) Corrected Price

C. Reference Descriptions

(Request)

(OPTAR)

(F 2.11)	S: 4 D: 5	Produce/Route External Requisitions Verify Funds Available
(F 2.9)	S: 4.2 D: 5	Create Purchase Orders/POA Verify Funds Available
(F 2.8)	S: 4.3 D: 5	Verify Price/Route NSS Requisitions Verify Funds Available

(RF)

(F 2.11)	S: 4 D: 8	Produce/Route External Requisitions Verify Funds Available
(F 2.9)	S: 4.2 D: 8	Create Purchase Orders/POA Verify Funds Available
(F 2.8)	S: 4.3 D: 8	Verify Price/Route NSS Requisitions Verify Funds Available

(Reply)

(OPTAR)

(F 2.11)	S: 5 D: 4	Verify Funds Available Produce/Route External Requisitions
(F 2.11)	S: 5 D: 4.2	Verify Funds Available Create Purchase Orders/POA
(F 2.11)	S: 5 D: 4.3	Verify Funds Available Verify Price/Route NSS Requisitions

(RF)

(F 2.11)	S: 8 D: 4	Verify Funds Available Produce/Route External Requisitions
(F 2.11)	S: 8 D: 4.2	Verify Funds Available Create Purchase Orders/POA
(F 2.11)	S: 8 D: 4.3	Verify Funds Available Verify Price/Route NSS Requisitions

D. Remarks

Requisition Number

A. The coded alphanumberic unique identifier assigned to an individual requisition.

B. Contents

(1) See DD-1348

C. Reference Descriptions

(F 2.15)	S: 15	Create PRC's
	D: 11	Store Correct Status Data

D. Remarks

Requisition Suspense Documents

A. Document(s) held in a suspense file as a reminder of an uncompleted action.

B. Contents

(1) Approved Requisition
(2) Purchase Order
(3) NSS Released Requisition

C. Reference Descriptions

(F 2.12)	S: SRD22	PENDING RELEASED REQUISITIONS
	D: 36.1	Verify Item Receipt Documents
(F 2.12)	S: SCD23	PENDING PURCHASE ORDER REQUISITIONS
	D: 36.3	Route Completed Requisition Data
(F 2.14)	S: CPD4	PENDING RELEASED PA REQUISITIONS
	D: 11	Store Correct Status Data
(F 2.15)	S: DD13	PENDING ITEM REQUISITIONS/REQUESTS
	D: 7	Store Correct Status Data
(F 2.15)	S: DD14	PENDING RELEASED REQUISITIONS/ PURCHASE ORDERS
	D: 7	Store Correct Status Data
(F 2.15)	S: 7	Store Correct Status Data
	D: DD20	REQUISITION HISTORY

D. Remarks

(1) Usually the Requisition Suspense Document is (1) and either (2) or (3) above. It can also be either (2) or (3) only.

Supply Receipt Documents

A. Documents received with an item delivered to NPS used by the Supply Department for accounting purposes.

B. Contents

(1) DD-1348-1
(2) Item Invoices
(3) Transfer DD-1348-1 with correct price (NSS Requisitions)

C. Reference Descriptions

(F 2.12)	S: 36.1	Verify Item Receipt Documents
	D: 36.2	Route Supply Receipt Documents
(F 2.12)	S: 36.2	Route Supply Receipt Documents
	D: 36.3	Route Completed Requisition Data

D. Remarks

(1) Documents will vary dependent on whether item was obtained through NSS or commercially.

Survey

A. Document stating approval of delection of accountable equipment which is either missing or beyond economical repair from its account.

(request)

The document from the accountable department requesting the official authorization to delete the item from the account concerned.

B. Contents

(1) See Survey Form 2090

C. Reference Descriptions

(F 2.24)	S: 35 D: 16	Approve/Route Surveys Enter Corrections in NPS PA Equipment Files
(F 2.24)	S: 16 D: o	Enter Corrections in NPS PA Equipment Files NSC OAKLAND
(F 2.24)	S: 35 D: SD24	Approve/Route Surveys COMPLETED SURVEYS
(F 2.24)	S: 35 D: 22	Approve/Route Surveys Enter Corrections in Department Equipment Files

(request)

(F 2.24)	S: 34 D: 35	Create Equipment Survevs (request) Approve/Route Surveys

D. Remarks

Transfer DD-1348-1

A. A DD-1348-1 prepared on individual equipment items approved for transfer to either another using command or to a disposal activity.

B. Contents

(1) See DD-1348-1 (transfer)

C. Reference Descriptions

(F 2.19)	S: 31 D: t	Create/Route Transfer DD-1348-1's Equipment Transfer Destination
(F 2.19)	S: 31 D: 32	Create/Route Transfer DD-1348-1's Store Transfer DD-1348-1's
(F 2.19)	S: 31 D: SID29	Create/Route Transfer DD-1348-1's PENDING TRANSFER DD-1348-1'S
(F 2.19)	S: 31 D: 11	Create/Route Transfer DD-1348-1's Store Correct Status Data
(F 2.19)	S: 11 D: CPD11	Store Correct Status Data PENDING PA EQUIPMENT TRANSFER DD-1348-1'S
(F 2.19)	S: CPD11 D: 11	PENDING PA EQUIPMENT TRANSFER DD-1348-1'S Store Correct Status Data
(F 2.19)	S: 32 D: DD21	Store Transfer DD-1348-1's EQUIPMENT TRANSFER HISTORY
(F 2.22)	S: SID29 D: 33	PENDING TRANSFER DD-1348-1'S Store/Route Transfer Receipts

D. Remarks

Transfer Receipt DD-1348-1

A. A DD-1348-1 with a signature signifying receipt of the item(s) listed on it.

B. Contents

(1) DD-1348-1 with receipt signature

C. Reference Descriptions

(F 2.22)	S: t D: 33	Defense Property Disposal Office Store/Route Transfer Receipts
(F 2.22)	S: 33 D: 16	Store/Route Transfer Receipts Enter Corrections in NPS PA Equipment Files
(F 2.22)	S: 33 D: SID30	Store/Route Transfer Receipts EQUIPMENT TRANSFER RECEIPTS
(F 2.19)	S: 33 D: 11	Store/Route Transfer Receipts Store Correct Status Data

D. Remarks

(1) A copy of the Transfer DD-1348-1 is used for Transfer Items.

Unjustified Requisition

A. A requisition for commercial purchase of an item for which a suitable substitute is available through the Navy Supply System.

B. Contents

(1) DD-1348 Approved Requisition
(2) SF-36 (if applicable)

C. Reference Descriptions

(F 2.8)	S: 4.1 D: 1.1	Determine Item NSS Availability Create Item Requests

D. Remarks

User Department

A. Department maintaining custody and final accountability of PA equipment item.

B. Contents

(1) Name or code of department

C. Reference Descriptions

(F 2.15)	S: 15	Create PRC's
	D: 11	Store Correct Status Data
(F 2.18)	S: 16	Enter Corrections in NPS PA Equipment Files
	D: CPD6	PA EQUIPMENT MASTER
(F 2.18)	S: 16	Enter Corrections in NPS PA Equipment Files
	D: CPD7	PRC'S
(F 2.18)	S: 16	Enter Corrections in NPS PA Equipment Files
	D: CPD9	PA EQUIPMENT NOMENCLATURE

D. Remarks

User Receipt Documents

A. Documents received with an item delivered to NPS used by the user department.

B. Contents

(1) Equipment users' manual, etc.
(2) Invoice copies

C. Reference Descriptions

(F 2.12)	S: 36.1	Verify Item Receipt Documents
	D: 12	Enter/Route Received Item Data
(F 2.15)	S: 36	Store/Route Completed Requisition Data
	D: 13	Store Equipment Data
(F 2.15)	S: 36	Store/Route Completed Requisition
	D: 7	Store Correct Status Data
(F 2.15)	S: 7	Store Correct Status Data
	D: DD20	REQUISITION HISTORY

D. Remarks

Validated Item Request

A. Item Requests requiring expenditure of Reimbursable Funds which have been assigned a requisition number and forwarded to the RAO by the User Department.

(verified)

An Item Request for which requested Reimbursable Funding is available in the RAO REIMBURSABLE FUND RECORDS.

(invalid)

A request for an item not previously included in the budget of the Reimbursable Fund account concerned.

(unfunded)

A request for which funds are not available.

B. Contents

(1) DD-1348 Validated Item Request
(2) SF-36 (if applicable)

C. Reference Descriptions

(F 2.2)	S: 1	Create Item Requests/ Store Accounting Data
	D: 2	Enter Dean of Research Approval/ Store Accounting Data
(F 2.3)	S: 1.3	Enter Document Numbers
	D: 2	Enter Dean of Research Approval/ Store Accounting Data
(F 2.3)	S: 1.3	Enter Document Numbers
	D: 7	Store Correct Status Data
(F 2.3)	S: 7	Store Correct Status Data
	D: DD13	PENDING ITEM REQUISITIONS/REQUESTS
(F 2.6)	S: 1	Create Item Requests/ Store Accounting Data
	D: 2.1	Verify Item Requests' Validity
(F 2.6)	S: 2.1	Verify Item Requests' Validity
	D: 8	Verify Funds Available

(verified)

(F 2.6)	S: 8	Verify Funds Available
	D: 9	Store Accounting Data
(F 2.6)	S: 8	Verify Funds Available
	D: 2.2	Enter Approval Signature

(invalid)

(F 2.6)	S: 2.1	Verify Item Requests' Validity
	D: 1	Create Item Requests/Store Accounting Data

(unfunded)

(F 2.6)	S: 8	Verify Funds Available
	D: 1	Create Item Requests/Store Accounting Data

D. Remarks

Verified Item Request

A. An Item Request for which requested OPTAR funding is available in the Department OPTAR RECORDS.

B. Contents

(1) DD-1348 Item Requests (OPTAR)
(2) SF-36 (if applicable)

C. Reference Descriptions

(F 2.3)	S: 5	Verify Funds Available
	D: 6	Store Accounting Data
(F 2.3)	S: 5	Verify Funds Available
	D: 1.2	Approve Item Requests

D. Remarks

APPENDIX E

DATA PROCESSES

1 Create Item Requests/Store Accounting Data (F 2.2, 2.6, 2.7)

A. Initiate item requisition documents in response to need. Maintain records on requisitions and funds expended for them.

B. Process Logic

Put equipment specifications and accounting data on DD-1348. Enter department request approval (OPTAR, OPN). Assign document number and maintain suspense copy.

C. Flows In

S - 1		Item Specifications
2.1 - 1		Validated Item Requests (invalid)
2.1 - 1		Validated Item Requests (unfunded)
4.1 - 1		Unjustified Requisitions

D. Flows Out

1 - 2		Validated Item Requests
1 - 2.1		Validated Item Requests
1 - 3		Requisitions
1 - 3.1		Requisitions

E. Remarks

1.1 Create Item Requests (F 2.3, 2.8)

A. Put item specifications and accounting data on DD-1348's.

B. Process Logic

C. Flows In

S - 1.1		Item Specifications
4.1 - 1.1		Unjustified Requisitions

D. Flows Out

1.1 - 1.2		Item Requests (OPN)
1.1 - 5		Item Requests (OPTAR)
1.1 - 1.3		Item Requests (RF)

E. Remarks

1.2 Enter Approval Signature
(F 2.3)

A. Enter user department approval signature on a Verified Item Request for all OPTAR/OPN expenditures.

B. Process Logic

C. Flows In

1.1	-	1.2	Item Requests (OPN)
5	-	1.2	Verified Item Requests

D. Flows Out

1.2	-	1.3	Approved Item Requests

E. Remarks

(1) Often approval authority for items below a certain cost is delegated by the department chairman.

1.3 Enter Document Numbers
(F 2.3)

A. Enter sequential department requisition serial number.

B. Process Logic

C. Flows In

1.1	-	1.3	Item Requests (RF)
1.2	-	1.3	Approved Item Requests
DD15	-	1.3	Document Numbers

D. Flows Out

1.3	-	DD15	Department Document Numbers (Used)
1.3	-	7	Requisitions (OPTAR, OPN)
1.3	-	7	Validated Item Requests
1.3	-	2	Validated Item Requests
1.3	-	3	Requisitions (OPTAR, OPN)

E. Remarks

2 Enter Dean of Research Approval/Store RF Accounting Data (F 2.2, 2.3, 2.7)

A. Verify the request meets the requirements of a RF request and enter approval on behalf of the Dean of Research. Store RF accounting data.

B. Process Logic

Verify requisition codes on item request.
Verify item is budgeted and authorized for purchase.
Verify RF are available in the designated Reimbursable Account to support the request.
IF any of above are not met, return request to originator.
Enter approval signature.

C. Flows In

1	-	2	Validated Item Requests
1.3	-	2	Validated Item Requests

D. Flows Out

2	-	3	Requisitions
2	-	3.1	Requisitions

E. Remarks

2.1 Verify Item Requests' Validity (F 2.6)

A. Verify item is included in budget for RF account from which expenditure is requested and accounting data is correct.

B. Process Logic

IF either of above conditions are not met, the request is returned to the originator.

C. Flows In

1	-	2.1	Validated Item Requests

D. Flows Out

2.1	-	1	Validated Item Requests (invalid)
2.1	-	8	Validated Item Requests

E. Remarks

2.2 Enter Approval Signature
(F 2.6)

A. Enter a signature on behalf of the Dean of Research approving a Validated Item Request (verified) expending Reimbursable Funds.

B. Process Logic

C. Flows In

8	- 2.2	Validated Item Requests (verified)

D. Flows Out

2.2	- 3	Requisitions

E. Remarks

3 Enter NPS Approval/Store Accounting Data
(F 2.2, 2.3, 2.6, 2.8)

A. Verify the request is correct and can be supported with available NPS funding. Enter NPS accounting data.

B. Process Logic

Verify requisition accounting codes.
Verify funding is available in the designated OPTAR or Reimbursable account to support the request.
Enter NPS Approval.

C. Flows In

1	- 3	Requisitions
1.3	- 3	Requisitions (OPTAR, OPN)
2	- 3	Requisitions
2.2	- 3	Requisitions

D. Flows Out

3	- 4	Approved Requisitions
3	- 4.1	Approved Requisitions

E. Remarks

3.1 Verify Requisition Codes
(F 2.7)

A. Ensure the requisition accounting codes on the request are in accordance with NPS Comptroller directives.

B. Process Logic

C. Flows In

1	-	3.1	Requisitions
2	-	3.1	Requisitions

D. Flows Out

3.1	-	3.2	Requisitions

E. Remarks

3.2 Verify Funds Available
(F 2.7)

A. Verify that the official NPS balance in the account to be debited will support the expenditure.

B. Process Logic

C. Flows In

3.1	-	3.2	Requisitions
CBD1	-	3.2	NPS OPTAR Account Balance
CBD2	-	3.2	NPS Reimbursable Funds Account Balance

D. Flows Out

3.2	-	3.3	Requisitions (verified)

E. Remarks

3.3 Enter NPS Approval
(F 2.7)

A. Enter an initial on the approved item request which indicates it is approved for Supply Department requisition action.

B. Process Logic

C. Flows In

3.2	- 3.3	Requisitions (verified)

D. Flows Out

3.3	- 10	Approved Requisitions (PA)
3.3	- 11	Approved Requisitions (PA)
3.3	- 4	Approved Requisitions

E. Remarks

4 Produce/Route External Requisitions (F 2.2, 2.7, 2.11)

A. Prepare requisition documents and route them to the supplier of the requisitioned item.

B. Process Logic

Verify the item is available from the Navy Supply System or not available in the case of requisitions for commercial purchases.

Determine and enter the correct price of the item; notify approving departments of price increases and receive requisition reapproval.

Prepare commercial Purchase Orders.

Store requisition copies and route copies for accounting purposes.

C. Flows In

5	- 4	Requisition Confirmation Replies (OPTAR)
8	- 4	Requisition Confirmation Replies (RF)
3	- 4	Approved Requisitions
3.3	- 4	Approved Requisitions
10	- 4	Approved Requisitions

D. Flows Out

4	- n	Released NSS Requisitions
4	- v	Purchase Orders/PO Amendments
4	- 10	Purchase Orders/PO Amendments
4	- 10	Released NSS Requisitions
4	- 8	Requisition Confirmation Requests (RF)
4	- 9	Purchase Orders/PO Amendments (RF)
4	- 5	Requisition Confirmation Requests (OPTAR)
4	- 6	Purchase Orders/PO Amendments (OPTAR)
4	- 7	Purchase Orders/PO Amendments (OPTAR, OPN)

E. Remarks

4.1 Determine Item NSS Availability
(F 2.8, 2.9)

A. Compare item specifications with the specifications of similar items available through the Navy Supply System. Verify current price on NSS requisitions.

B. Process Logic

IF the item is available and the requisition is for a commercial purchase with no justification, return the requistion to the originator.

Determine and enter the correct price of items ordered on NSS requisitions, notify approving departments of price increases above a designated amount and receive requisition reapproval.

C. Flows In

3	-	4.1	Approved Requisitions
m	-	4.1	Item Specifications

D. Flows Out

4.1	-	1.1	Unjustified Requisitions
4.1	-	4.2	Justified Requisitions
4.1	-	4.3	Approved NSS Requisitions

E. Remarks

4.2 Create Purchase Orders/PO Amendments (F 2.8, 2.9)

A. Using item specifications, determine commercial sources of the requisitioned items and draw up government purchase orders to purchase the items.

B. Process Logic

Contact vendors for bids on all items over $500.00 in value unless the items is already covered by a previously written GSA contract.

Once the correct price of the items ordered is determined notify approving departments of price increases above a designated amount and receive requisition reconfirmation.

Any change in the terms of the original PO will require creation of a PO Amendment covering the change.

C. Flows In

5	-	4.2	Requisition Confirmation Replies (OPTAR)
8	-	4.2	Requisition Confirmation Replies (RF)
4.1	-	4.2	Justified Requisitions
v	-	4.2	Item Bids

D. Flows Out

4.2	-	v	Item Bid Requests
4.2	-	v	Purchase Orders/PO Amendments
4.2	-	SPD31	Purchase Orders/PO Amendments
4.2	-	4.4	Approved Requisitions
4.2	-	4.4	Purchase Orders/PO Amendments
4.2	-	4.5	Approved Requisitions
4.2	-	4.5	Purchase Orders/PO Amendments
4.2	-	5	Requisition Confirmation Requests (OPTAR)
4.2	-	8	Requisition Confirmation Requests (RF)

E. Remarks

4.3 Verify Price/Route NSS Requisitions (F 2.8)

A. Place NSS requisition data in format for transmitting to NSS entry point.

B. Process Logic

C. Flows In

5	-	4.3	Requisition Confirmation Replies (OPTAR)
8	-	4.3	Requisition Confirmation Replies (RF)
4.1	-	4.3	Approved NSS Requisitions

D. Flows Out

4.3	-	5	Requisition Confirmation Requests (OPTAR)
4.3	-	8	Requisition Confirmation Requests (RF)
4.3	-	n	Released NSS Requisitions
4.3	-	4.4	Released NSS Requisitions
4.3	-	10	Released NSS Requisitions
4.3	-	SID25	Released NSS Requisitions

E. Remarks

4.4 Store Requisition Documents (F 2.8, 2.9)

A. Store requisition documents received in a suspense file.

B. Process Logic

C. Flows In

4.2	-	4.4	Purchase Orders/PO Amendments
4.2	-	4.4	Approved Requisitions
4.3	-	4.4	Released NSS Requisitions

D. Flows Out

4.4	-	SRD22	Purchase Orders/PO Amendments
4.4	-	SRD22	Approved Requisitions
4.4	-	SRD22	Released NSS Requisitions

E. Remarks

(1) The contents of the file are used to identify the ultimate destination of items received and the personnel to contact for delivery after its arrival at NPS.

4.5 Store Requisition Documents/Route Purchase Order Copies (F 2.9)

A. Store commercial requisition documents in a suspense file. Route feedback copies of Purchase Orders to departments for accounting purposes.

B. Process Logic

IF Purchase Orders are for a purchase with Reimbursable Funds, forward copies to the RAO and not the User Department
ELSE forward copies to the User Department and not the RAO.

C. Flows In

4.2 - 4.5	Approved Requisitions
4.2 - 4.5	Purchase Orders/PO Amendments

D. Flows Out

4.5 - SCD23	Approved Requisitions
4.5 - SCD23	Purchase Orders/PO Amendments
4.5 - 9	Purchase Orders/PO Amendments (RF)
4.5 - 6	Purchase Orders/PO Amendments (OPTAR, OPN)
4.5 - 10	Purchase Orders/PO Amendments

E. Remarks

5 Verify Funds Available
(F 2.3 2.8, 2.9, 2.11)

A. Verify that Department OPTAR RECORDS indicate funds are available to support an item request.

B. Process Logic

IF funds are not available, return item request to originator.

C. Flows In

1.1 - 5		Item Requests (OPTAR)
4 - 5		Requisition Confirmation Requests (OPTAR)
4.2 - 5		Requisition Confirmation Requests (OPTAR)
4.3 - 5		Requisition Confirmation Requests (OPTAR)
DD12 - 5		OPTAR Record Balance

D. Flows Out

5 - 1.2		Verified Item Requests
5 - 6		Verified Item Requests
5 - 4		Requisition Confirmation Replies (OPTAR)
5 - 6		Department OPTAR Accounting Data
5 - 4.2		Requisition Confirmation Replies (OPTAR)
5 - 4.3		Requisition Confirmation Replies (OPTAR)

E. Remarks

6 Store Accounting Data
(F 2.3, 2.9, 2.11)

A. Enter necessary accounting data from a request or requisition into the Department OPTAR RECORDS.

B. Process Logic

C. Flows In

5 - 6		Verified Item Requests
5 - 6		Department OPTAR Accounting Data
4 - 6		Purchase Orders/PO Amendments (OPTAR)
4.5 - 6		Purchase Orders/PO Amendments (OPTAR)

D. Flows Out

6 - DD12		Department OPTAR Accounting Data

E. Remarks

7 Store Correct Status Data
(F 2.3, 2.11, 2.15)

A. Enter latest department item request/requisition documents in suspense files and remove earlier documents reflecting outdated status data.

B. Process Logic

- IF document received is an Approved Request, store it.

IF document received is a Released NSS Requisition or a Purchase Order, store them after removing the Approved Requisition with the same requisition number from its suspense files.

IF item and User Receipt Documents have been received, remove all suspense documents with that requisition number and place desired documents in the department historical file.

C. Flows In

1.3 - 7		Requisitions (OPTAR, OPN)
1.3 - 7		Validated Item Requests
9 - 7		Purchase Orders/PO Amendments (RF)
DD13 - 7		Requisition Suspense Documents
4 - 7		Purchase Orders/PO Amendments (OPTAR, OPN)
9 - 7		Purchase Orders/PO Amendments (RF)
36 - 7		User Receipt Documents
DD14 - 7		Requisition Suspense Documents

D. Flows Out

7 - DD13		Requisitions (OPTAR, OPN)
7 - DD13		Validated Item Requests
7 - DD14		Purchase Orders/PO Amendments
7 - DD20		Requisition Suspense/User Receipt Documents

E. Remarks

8 Verify Funds Available
(F 2.6, 2.8, 2.9, 2.11)

A. Ensure the RF account balance in the RAO REIMBURSABLE FUNDS RECORDS is sufficient to support an item request/requisition.

B. Process Logic

IF the RF balance is not sufficient, return the requisition to the originator.

C. Flows In

2.1	- 8	Validated Item Requests
4	- 8	Requisition Confirmation Requests (RF)
4.3	- 8	Requisition Confirmation Requests (RF)
4.2	- 8	Requisition Confirmation Requests (RF)
RD22	- 8	Reimbursable Funds Record Balance

D. Flows Out

8	- 1	Validated Item Requests (unfunded)
8	- 9	Validated Item Requests (verified)
8	- 9	RAO RF Accounting Data
8	- 2.2	Validated Item Requests (verified)
8	- 4	Requisition Confirmation Replies (RF)
8	- 4.2	Requisition Confirmation Replies (RF)
8	- 4.3	Requisition Confirmation Replies (RF)

E. Remarks

9 Store Accounting Data
(F 2.6, 2.9, 2.11)

A. Enter necessary accounting data from a request or requisition into the RAO REIMBURSABLE FUNDS RECORDS.

B. Process Logic

C. Flows In

8	- 9	Validated Item Requests (verified)
8	- 9	RAO RF Accounting Data
4	- 9	Purchase Orders/PO Amendments (RF)
4.5	- 9	Purchase Orders/PO Amendments (RF)

D. Flows Out

9	- RD22	RAO Reimbursable Fund Accounting Data
9	- 7	Purchase Orders/PO Amendments (RF)

E. Remarks

10 Store Accounting Data
(F 2.7, 2.8, 2.9, 2.12, 2.14)

A. Enter necessary accounting data from a request or requisition into the NPS OPTAR or REIMBURSABLE FUNDS ACCOUNTS accounting records and forward a copy of potential PA Item Requests to the PA clerk.

B. Process Logic

IF request is for PA elgible equipment, forward a copy of the request to the PA clerk after entering data from the Item Requests in the NPS accounting records.
IF requisition is for a PA elgible item, forward the requisition document to the PA clerk after entering data from the document in the NPS accounting records.

C. Flows In

3.3	-	10	Approved Requisitions
4	-	10	Purchase Orders/PO Amendments
4	-	10	Released NSS Requisitions
4.3	-	10	Released NSS Requisitions
4.5	-	10	Purchase Orders/PO Amendments
36	-	10	Price Corrected DD-1348's
36.4	-	10	Price Corrected DD-1348's

D. Flows Out

10	-	11	Purchase Orders/PO Amendments (PA)
10	-	11	Released NSS Requisitions (PA)
10	-	4	Approved Requisitions
10	-	CBD1	NPS OPTAR Accounting Data
10	-	CBD2	NPS Reimbursable Funds Accounting Data

E. Remarks

(1) Corrected Price is usually always entered from the requisition documents. Other data which was not available from the original requisition is also entered.

11 Store Correct Status Data
(F 2.7, 2.11, 2.12, 2.14, 2.15, 2.19, 2.22)

A. Enter latest PA-elgible item request/requisition documents in suspense files and remove earlier documents reflecting outdated status data.

B. Process Logic

IF document received is an Approved Requisition, store it.

IF document received is a Released NSS Requisition or a Purchase Order, store them after removing the Approved Requisition with the same requisition number from their suspense files.

IF document received is an Item Receipt, file it after removing any Approved Requisitions, Released NSS Requisitions, or Purchase Orders with the same requisition number from their suspense files.

If document received is a PRC (rough), remove all of the above documents with the same requisition number from the suspense files.

C. Flows In

3.3	-	11	Approved Requisitions (PA)
10	-	11	Purchase Orders/PO Amendments (PA)
10	-	11	Released NSS PA Requisitions (PA)
CPD3	-	11	Approved Requisitions (PA)
36	-	11	Item Receipts (PA)
36.3	-	11	Item Receipts (PA)
CPD4	-	11	Requisition Suspense Documents (PA)
15	-	11	Requisition Numbers (PA)
15	-	11	User Department
CPD5	-	11	Item Receipts (PA)
CPD11	-	11	Transfer DD-1348-1's (PA)
31	-	11	Transfer DD-1348-1's (PA)
33	-	11	Transfer Receipt DD-1348-1's (PA)

D. Flows Out

11	-	CPD3	Approved Requisitions (PA)
11	-	CPD4	Purchase Orders/PO Amendments (PA)
11	-	CPD4	Released NSS Requisitions (PA)
11	-	CPD5	Item Receipts (PA)
11	-	CPD11	Transfer DD-1348-1's (PA)

E. Remarks

12 Enter/Route Received Item Data
(F 2.12)

A. Upon receiving the item and Item Receipt Documents, enter data on the item in appropriate files.

B. Process Logic

Sign the Item Receipt.
Remove Requisition Suspense Documents from Department Suspense Files.
Enter equipment data in Department Equipment Data File.
Initiate data transfer to enter the item into the NPS Plant Account.

C. Flows In

36.1	-	12	Item Receipts (unsigned)
36.1	-	12	User Receipt Documents

D. Flows Out

12	-	36.2	Item Receipts

E. Remarks

13 Store Equipment Data
(F 2.15, 2.18)

A. Store required equipment data in the Department EQUIPMENT DATA File.

B. Process Logic

C. Flows In

36	-	13	User Receipt Documents
e	-	13	Equipment Nameplate Data
24	-	13	PRC's

D. Flows Out

13	-	DD18	Equipment Data

E. Remarks

14 Create PRC's (rough)
(F 2.15)

A. Fill out required sections of PRC Forms (DD-1342) with equipment and requisition data as a basis for the PRC's.

B. Process Logic

C. Flows In

DD18	-	14	Equipment Data
DD17	-	14	NID Numbers
e	-	14	Equipment Nameplate Data (PA)
36	-	14	User Receipt Documents (PA)

D. Flows Out

14	-	15	PRC's (rough)

E. Remarks

15 Create PRC's
(F 2.15)

A. Using the PRC's (rough) as a basis, type the necessary data onto a PRC for each item entered into the NPS Plant Account.

B. Process Logic

C. Flows In

14	-	15	PRC's (rough)
p	-	15	PRC Codes

D. Flows Out

15	-	16	PRC's
15	-	17	PRC's
15	-	11	Requisition Numbers (PA)
15	-	11	User Department
15	-	o	PRC's

E. Remarks

16 Enter Corrections in NPS PA Equipment Files
(F 2.15, 2.18, 2.22, 2.24)

A. Enter data in the NPS PA equipment files to ensure they reflect the current status of the NPS Plant Account.

B. Process Logic

C. Flows In

15	-	16	PRC's
24	-	16	Custody Change Data
CPD7	-	16	PRC's
33	-	16	Transfer Receipt DD-1348-1's (PA)
CPD9	-	16	PA Equipment Nomenclature Cards
35	-	16	Surveys (PA)

D. Flows Out

16	-	o	PRC's
16	-	CPD6	PA Equipment Master Data
16	-	CPD7	PRC's
16	-	CPD8	NID Number File Data
16	-	CPD9	PA Equipment Nomenclature Cards
16	-	CPD6	User Department (Receiving)
16	-	CPD7	User Department (Receiving)
16	-	CPD7	Location
16	-	CPD8	User Department (Receiving)
16	-	CPD9	User Department (Receiving)
16	-	CPD6	Equipment Deletion Entries
16	-	CPD10	PA Equipment History Cards
16	-	o	PA Equipment Removal Notifications
16	-	c	Surveys (PA)

E. Remarks

17 Store PRC's
(F 2.15)

A. Store PRC's in the user department file.

B. Process Logic

C. Flows In

15	-	17	PRC's
24	-	17	PRC's

D. Flows Out

17	-	DD16	PRC's

E. Remarks

18 Produce Department PA Equipment Inventory Report (F 2.16)

A. Using the Department EQUIPMENT DATA File data, conduct a sight inventory of all PA equipment. Taking the results of the sight inventory, produce an equipment inventory report.

B. Process Logic

C. Flows In

i	-	18	Inventory Data (actual)

D. Flows Out

18	-	19	Inventory Data

E. Remarks

19 Produce NPS PA Equipment Inventory Report (F 2.16)

A. Using the department inventory results, produce an inventory report for NPS.

B. Process Logic

C. Flows In

18	-	19	Inventory Data

D. Flows Out

19	-	o	NPS PA Equipment Inventory Reports

E. Remarks

20 Identify Equipment Requiring Calibration (F 2.17)

A. Determine which equipment items are due for calibration.

B. Process Logic

C. Flows In

f	-	20	Calibration Due Data
DD19	-	20	Calibration Due Data

D. Flows Out

E. Remarks

(1) Either the ADP printout from the Calibration ADP Facility or the Department Log is usually used, but not both.

21 Enter Calibration Due Data
(F 2.17)

A. Enter data on calibration due dates for equipment requiring calibration.

B. Process Logic

IF calibration is not done by the same facility providing a printout of calibration due data, the data is manually entered on the printout and returned to the calibration data facility.

C. Flows In

c - 21		Calibration Completed Data
r - 21		Equipment Calibration Reference Data

D. Flows Out

21 - f		Calibration Due Data
21 - DD19		Calibration Due Data

E. Remarks

22 Enter Corrections in Department Equipment Files
(F 2.18, 2.24)

A. Make necessary corrections to the Department EQUIPMENT DATA File so that it reflects the current inventory status.

B. Process Logic

C. Flows In

35 - 22		Surveys
DD16 - 22		PRC's

D. Flows Out

22 - DD18		Custody Change Data
22 - DD18		Equipment Deletion Entries
22 - 23		PRC's

E. Remarks

23 Create Custody Change Memoranda
(F 2.18)

A. Compile Custody Change Data for transmission to PA clerk.

B. Process Logic

C. Flows In

22	-	23	PRC's

D. Flows Out

23	-	24	Custody Change Data
23	-	24	PRC's

E. Remarks

24 Enter Data Changes on PRC's
(F 2.18)

A. Verify Change Data and enter it on PRC's for the PA equipment item.

B. Process Logic

C. Flows In

23	-	24	Custody Change Data
23	-	24	PRC's

D. Flows Out

24	-	16	Custody Change Data
24	-	13	PRC's
24	-	17	PRC's

E. Remarks

25 Create Equipment Transfer Lists
(F 2.19)

A. Compose the list of equipment to be turned in including the required equipment data.

B. Process Logic

C. Flows In

DD18	-	25	Equipment Data (transfer)

D. Flows Out

25	-	26	Equipment Transfer Lists
25	-	27	Equipment Transfer Lists

E. Remarks

(1) Although a copy of the Transfer List is required to be sent to the PA clerk, sometimes this is not done. This requires the Supply Department to forward a copy of the list it receives to the PA clerk.

26 Store/Forward Equipment Transfer Lists
(F 2.19)

A. Forward the received Transfer List for review while retaining a copy.

B. Process Logic

C. Flows In

25	-	26	Equipment Transfer Lists

D. Flows Out

26	-	27	Equipment Transfer Lists
26	-	SID28	Equipment Transfer Lists

E. Remarks

(1) The forwarding action is not required if a copy of the Equipment Transfer List has been sent to the PA clerk as required.

27 Specify Immediate Transfer Equipment (F 2.19)

A. Identify and indicate equipment authorized for immediate transfer and that which will require external approval for disposition.

B. Process Logic

C. Flows In

25	-	27	Equipment Transfer Lists
26	-	27	Equipment Transfer Lists
CPD7	-	27	Equipment Data (controlled)
d	-	27	Equipment Data (controlled)

D. Flows Out

27	-	29	Equipment Data (controlled)
27	-	31	Equipment Data (transfer)
27	-	28	Equipment Data (transfer)

E. Remarks

28 Remove PRC's of Items to be Transferred (F 2.19)

A. Remove the PRC of each equipment item authorized for immediate transfer from the PRC file.

B. Process Logic

C. Flows In

27	-	28	Equipment Data (transfer)
30	-	28	Equipment Data (transfer)
CPD7	-	28	PRC's

D. Flows Out

28	-	31	PRC's

E. Remarks

(1) A PRC copy is not required but requested to accompany the item being turned in by the Defense Property Disposal Office.

29 Create Disposition Requests for Controlled Equipment
(F 2.19)

A. Prepare a disposition request to higher authority for a disposition directive for controlled equipment items.

B. Process Logic

C. Flows In

27	-	29	Equipment Data (controlled)

D. Flows Out

29	-	h	Disposition Requests

E. Remarks

30 Produce Disposition Memoranda for Controlled Equipment
(F 2.19)

A. Using the directive forwarded by higher authority, list the controlled equipment and turn-in destinations.

B. Process Logic

C. Flows In

h	-	30	Disposition Directives

D. Flows Out

30	-	28	Equipment Data (transfer)
30	-	31	Equipment Data (transfer)

E. Remarks

31 Create/Route Transfer DD-1348-1's
(F 2.19)

A. Prepare a Transfer DD-1348-1 for each item of equipment to be turned in and prepare a data package to accompany the equipment.

B. Process Logic

C. Flows In

27	-	31	Equipment Data (transfer)
30	-	31	Equipment Data (transfer)
28	-	31	PRC's
SID28	-	31	Equipment Transfer Lists

D. Flows Out

31	-	SID29	Transfer DD-1348-1's
31	-	t	Transfer DD-1348-1's
31	-	t	PRC's
31	-	11	Transfer DD-1348-1's (PA)
31	-	32	Transfer DD-1348-1's

E. Remarks

32 Store Transfer DD-1348-1's
(F 2.19)

A. Store the copy of the Transfer DD-1348-1 used as an equipment receipt by the User Department after the Supply Department picks up the equipment.

B. Process Logic

C. Flows In

31	-	32	Transfer DD-1348-1's

D. Flows Out

32	-	DD21	Transfer DD-1348-1's

E. Remarks

(1) The copy of the Transfer DD-1348-1 is the only proof the User Department has of release of equipment custody.

33 Store/Forward Transfer Receipts
(F 2.22)

A. Store Receipt DD-1348-1's in appropriate files and forward copies to appropriate departments. Remove copy from suspense file.

B. Process Logic

C. Flows In

†	- 33	Transfer Receipt DD-1348-1's
SID29	- 33	Transfer DD-1348-1's

D. Flows Out

33	- SID30	Transfer Receipt DD-1348-1's	
33	- 11	Transfer Receipt DD-1348-1's	(PA)
33	- 16	Transfer Receipt DD-1348-1's	(PA)

E. Remarks

34 Create Equipment Surveys (request)

(F 2.24)

A. Prepare a survey request for equipment which is missing or damaged beyond economical repair.

B. Process Logic

C. Flows In

DD18	- 34	Equipment Data
DD16	- 34	PRC's

D. Flows Out

34	- 35	Surveys (request)

E. Remarks

35 Approve/Route Surveys
(F 2.24)

A. Review the survey and either approve or disapprove it. If approved, route it to appropriate locations.

B. Process Logic

IF the survey is on a Plant Account Equipment item, send a copy to the PA clerk.
Send a copy of the survey to the originating department.

C. Flows In

34	-	35	Surveys (request)

D. Flows Out

35	-	16	Surveys (PA)
35	-	SD24	Surveys
35	-	22	Surveys

E. Remarks

36 Store/Route Completed Requisition Data
(F 2.14, 2.15)

A. Conduct final accounting on a requisition after item receipt, store the Completed Requisitions Documents in Supply Department files, and route feedback copies to appropriate departments.

B. Process Logic

IF Completed Requisition Documents are on a PA item, send a copy of the Item Receipt to the PA clerk.

C. Flows In

D. Flows Out

36	-	11	Item Receipts (PA)
36	-	10	Price Corrected DD-1348's
36	-	13	User Receipt Documents
36	-	14	User Receipt Documents
36	-	7	User Receipt Documents

E. Remarks

(1) Processes 36.1 through 36.6 are sub-processes of this process.

36.1 Verify Item Receipt Documents
(F 2.12)

A. Ensure the correct Receipt Documents have been received and marked for proper routing.

B. Process Logic

Verify User Department and delivery location.
Separate documents for transfer to the User Department with the item received and those for use by the Supply Department.
Prepare Item Receipts for User Department receiving individual to sign.

C. Flows In

v	-	36.1	Item Receipt Documents
n	-	36.1	Item Receipt Documents
SRD22	-	36.1	Requisition Suspense Documents

D. Flows Out

36.1	-	36.2	Supply Receipt Documents
36.1	-	12	Item Receipts (unsigned)
36.1	-	12	User Receipt Documents

E. Remarks

36.2 Route Supply Receipt Documents
(F 2.12)

A. Route Supply Receipt Documents to the Supply Department for accounting purposes.

B. Process Logic

C. Flows In

36.1	-	36.2	Supply Receipt Documents
12	-	36.2	Item Receipts

D. Flows Out

36.2	-	36.3	Supply Receipt Documents
36.2	-	36.3	Item Receipts

E. Remarks

(1) The Supply Receipt Documents are completed by the Item Receipt.

36.3 Route Completed Requisition Data
(F 2.12)

A. Consolidate all documents pertaining to a completed requisition for entry into Supply Department files and appropriate routing.

B. Process Logic

C. Flows In

36.2	- 36.3	Supply Receipt Documents
36.2	- 36.3	Item Receipts
SCD23	- 36.3	Requisition Suspense Documents

D. Flows Out

36.3	- 36.4	Supply Receipt Documents (NSS)
36.3	- 36.5	Completed Requisition Documents (PO)
36.3	- 11	Item Receipts (PA)
36.3	- 36.6	Purchase Order Numbers

E. Remarks

36.4 Route Completed Requisition Documents/
NSS Price Changes
(F 2.12)

A. Remove documents on completed requisition from suspense file. Enter a corrected price on documents for routing and filing.

B. Process Logic

IF the final item price has changed, route a Price Corrected DD-1348 to the Comptroller Department.

C. Flows In

36.3	- 36.4	Supply Receipt Documents (NSS)
SID25	- 36.4	Released NSS Requisitions

D. Flows Out

36.4	- 36.5	Completed Requisitions Documents (NSS)
36.4	- 10	Price Corrected DD-1348's

E. Remarks

36.5 Store Completed Requisition Documents (F 2.12)

A. Store Completed Requisitions Documents in Supply Department History Files.

B. Process Logic

C. Flows In

36.3	- 36.5	Completed Requisition Documents (PO)
36.4	- 36.5	Completed Requisition Documents (NSS)

D. Flows Out

36.5	- SID26	Completed Requisition Documents
36.5	- SID27	Completed Purchase Orders/ PO Amendments

E. Remarks

36.6 Extract Completed Purchase Orders (F 2.12)

A. Remove purchase orders on completed requisitions from the suspense file.

B. Process Logic

C. Flows In

36.3	- 36.6	Purchase Order Numbers
SPD31	- 36.6	Purchase Orders/PO Amendments

D. Flows Out

E. Remarks

APPENDIX F
EXTERNAL ENTITIES

c CALIBRATION ACTIVITY

A. The command or activity where equipment is calibrated.

B. Flows In

C. Flows Out

(F 2.17)	c	- 21	Calibration Complete Data

E. Remarks

d CONTROLLED EQUIPMENT DIRECTIVES

A. Directives which define equipment whose disposition is controlled directly by authority above the user level.

B. Flows In

C. Flows Out

(F 2.19)	d	- 18	Equipment Data (controlled)

E. Remarks

e EQUIPMENT ITEMS

A. The items of equipment ordered.

B. Flows In

C. Flows Out

(F 2.15)	e	- 13	Equipment Nameplate Data
(F 2.15)	e	- 14	Equipment Nameplate Data (PA)

E. Remarks

f CALIBRATION ADP FACILITY

A. A command or activity which provides ADP support for equipment calibration data. It is not necessarily a Calibration Activity.

B. Flows In

(F 2.17) 21 - f Calibration Due Data

C. Flows Out

(F 2.17) f - 13.1 Calibration Due Data

E. Remarks

h HIGHER AUTHORITY

A. The authority controlling disposition of controlled equipment.

B. Flows In

(F 2.19) 29 - h Disposition Requests

C. Flows Out

(F 2.19) h - 30 Disposition Directives

E. Remarks

i DEPARTMENT INVENTORY TEAM

A. The individual(s) conducting a sight inventory of department equipment.

B. Flows In

(F 2.16) DD18 - i Equipment Data

C. Flows Out

(F 2.16) i - 11.1 Inventory Data (actual)

E. Remarks

m NAVY MANAGEMENT DISTRIBUTION LIST

A. The listing of all Navy stock items available through the Navy supply system.

B. Flows In

C. Flows Out

(F 2.8)	m	- 4.1	Item Specifications

E. Remarks

n NAVY SUPPLY SYSTEM

A. The Navy logistics system used to procure Navy and government stock items.

B. Flows In

(F 2.2)	4	- n	Released NSS Requisitions
(F 2.8)	4.3	- n	Released NSS Requisitions

C. Flows Out

(F 2.12)	n	- 36.1	Item Receipt Documents

E. Remarks

o NSC OAKLAND

A. The command to which NPS is immediately responsible for Plant Account equipment; also the initial entry point for NPS Released NSS Requisitions.

B. Flows In

(F 2.15)	15	- o	PRC's
(F 2.16)	12	- o	NPS PA Equipment Inventory Report
(F 2.22) (F 2.24)	10.4	- o	PA Equipment Removal Notification
(F 2.22) (F 2.24)	10.4	- o	PRC's
(F 2.24)	10.4	- o	Surveys (PA)

C. Flows Out

E. Remarks

p PLANT ACCOUNTING DIRECTIVES

A. Directives of higher authority providing information codes for equipment classifications withing the plant account as well as PA guidance.

B. Flows In

C. Flows Out

(F 2.15) p - 15 PRC Codes

E. Remarks

r EQUIPMENT CALIBRATION REFERENCE

A. The quideline directive defining calibration intervals required for a particuclar type of equipment.

B. Flows In

C. Flows Out

(F 2.17) r - 21 Equipment Calibration Reference Data

E. Remarks

s ITEM INFORMATION SOURCE

A. Any source of equipment specifications. This includes the item NSN for NSS requests and where the item can be purchased for commercial purchases.

B. Flows In

C. Flows Out

(F 2.2) s - 1 Item Specifications

(F 2.3) s - 1.1 Item Specifications

E. Remarks

t TRANSFER DESTINATIONS

A. Commands or activities to which items are transferred from NPS.

B. Flows In

(F 2.19)	31	- t	Transfer DD-1348-1's
(F 2.19)	31	- t	PRC's

C. Flows Out

(F 2.22)	t	- 33	Transfer Receipt DD-1348-1's

E. Remarks

v VENDORS

A. Commercial sources of items for purchase.

B. Flows In

(F 2.2)	4	- v	Purchase Orders/POAs
(F 2.9)	4.2	- v	Purchase Orders/POAs
(F 2.9)	4.2	- v	Bid Requests

C. Flows Out

(F 2.9)	v	- 4.2	Item Bids
(F 2.12)	v	- 36.1	Item Receipt Documents

E. Remarks

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